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## PRATIYOGITA KIRAN

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The tenth month of 1999 will go down in history for the two co-incidents : the formation of the fifth democratically elected Government in India within a few years and the other, though fifth, was of a different nature—the military uprising in Pakistan. India, inspite of underlying political instability, showed its systemic stability. Pakistan witnessed a manifestation of her inherent fragility.



We observed the upsurge of a dictator whenever a country was defeated in the hands of her rival. It was the defeat of Germany in the First World War which paved the way for Hitler. Same was the case with Italy and Japan. There are innumerable such examples. Whenever a nation faces humiliation or threat, the *vox populi* backs a strong person or party, giving way to autocracy. That's why, pitifully enough, we followed that Pakistani commoners did not show their concern when Gen. Musharraf stormed into power. From the bloodless nature of the coup and the general support Gen. Musharraf commanded, we can conclude that the Pakistani defeat in Kargil had prepared the ground ahead of it and the General only master-minded it and avail himself of the opportunity. It was the defeat of Mr. Sharif in Kargil which outweighed his overwhelming victory in elections earlier. Thus popular Government lost its popularity with the Pakistani people. Paradoxically, the democracy in India followed its predetermined path to give mandate to the government which led the country to a victory over the rival. Bofors Pay-off case was not allowed, or not needed to play the role of a major determinant. India answered the political instability with an elected government. Democracy ruled supreme.

Though Indian democracy followed its natural way, but the nature has unfurled its negardlessness and devastating image to punish the poor in Orissa. The aftermath of the elections witnessed the unprecedented loss of life and property in Orissa forcing the new government to declare the same as national calamity. In the recent past Orissa was under the clutch of severe drought. This time, it is cyclone and flood. Intermittently, the nature shows its caprice and trifleness of human endeavour. Still man does not give up. Whenever there is a calamity in any corner of the country, Indian people get united; world community also comes forward. Humanity inspires us to help our fellowmen. If we look back, we find that man is continuously fighting with the nature. The instrument of course, is humanity : co-operation, fellow-feeling, forgiveness, love. It is this humanity which is dictating us to welcome 'Pope'. It is this humanity which guides us to affirm belief in democracy and secularism. In the happy ours of Diwali KIRAN PRAKASHAN and PRATIYOGITA KIRAN wish "Let this festival of fire, enlighten the humanity with humanism. Then only the humanity will be worth its name."

*—Shambhu Sharani*

(SHAMBHU SHARAN 'ADESH')  
Editor

# *to the readers*

Dear Readers,

This December 1999 issue is the first issue of the fifth year. With this your PRATIYOGITA KIRAN (English) enters its fifth year. So, in this special issue we prepare for you a number of special items. The foremost among them is, indeed, the Four Model Practice Sets for SSC COMBINED GRADUATE LEVEL MAIN EXAM. The same is provided in the Booklet supplied free of cost with this issue. In the Booklet, along with 4 such sets, you will find a brief analysis of the syllabus of the said exam. The Practice Sets are prepared on the basis of questions asked in the SSC Assistant Grade Main Exams, held in 1994, 1996, 1997 and 1998 and adapted to the need of the aspirants for the forthcoming exam. In these sets only questions are given, so that our readers could develop a deep insight on the nature of questions they are going to face and do practice on the basis of these questions. The answers of these questions will appear in the book meant for SSC Combined Graduate Level Main Exam which will be made available by the 20th of November. Besides these material for SSC Graduate Level exams the booklet also contains a detail Advice on Bank Clerical Exam (English) and remaining part of the Advice on Bank Clerical Exam (Reasoning). Including all, the Booklet takes the shape of a book having 128 pages. Considering the added pages (64 more pages) the price of December issue has been fixed. Hope, our readers will not find difficulties in bearing the enhanced price of Rs 5. The price has been increased for this issue only.

In the magazine, you will find a new addition. Now onwards you will find a separate set of information in the form of "To the Point". These are on traditional General Awareness, History, Science, Geography, Economy, Polity etc.

Articles on recent Lok Sabha elections, Military Coup in Pakistan and three other articles on economy and business of current importance are also likely to attract your attention. In the Practice Sets Section, one complete Target set (Reasoning, English, Mathematics, Clerical Aptitude and Descriptive English, three sets each) is given on the Bank Clerical Exam. Above all a number of Solved Question Papers of different exams held recently are also incorporated. Including all these valuable items we tried to make our first issue of the fifth year a memorable one. If you note anything which pinches you, communicate it before it goes down into your memory.

—Editor

PRATIYOGITA KIRAN



**BADHTE KADAM**

"Be with Kiran Prakashan and I want to assure you that Kiran Prakashan will be serving you with greater dedication and responsibility"

**GANPAT PRASAD SAH**

Founder

KIRAN PRAKASHAN

## *Forthcoming Attractions*

### **PRATIYOGITA KIRAN** **English (January 2000)**

#### **Highlights**

**SOLVED PAPERS**

MANAGEMENT ENTRANCE TEST

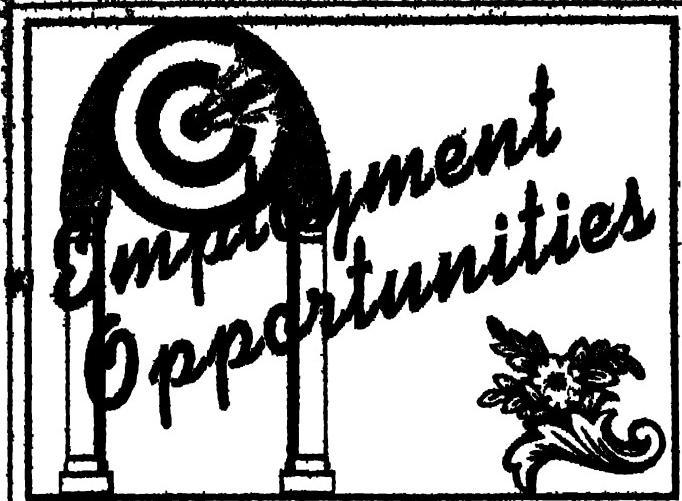
**MODEL PRACTICE SETS**

BANK PO. EXAMS.

TARGET SETS FOR BANK CLERICAL EXAMS.

RAILWAY EXAM.

SSC GRADUATE LEVEL (MAIN) EXAM.



### **BSRB CHENNAI**

Recruitment of Probationary Officers

**Total Posts : 50**

#### **ELIGIBILITY CRITERIA**

**Educational Qualifications :** A Degree from a recognised University or equivalent

**Age Limits .** Not below 21 years and not above 30 years as on 1st July 1999

Relaxation in upper age limit for certain categories

**Date of Written Exam. : 30 01 2000**

**Last Date for Receipt of Applications : 12 11 1999**

**N.B . For further details see EMPLOYMENT NEWS Dated 9-15 October, 1999.**

#### **SSC COMBINED MAIN (GRADUATE LEVEL) EXAM-1999**

Main Exam will be conducted from Jan 21 to 23, 2000 for candidates who have been declared qualified in the Preliminary Exam (Graduate Level) held on 04 07 1999 for the posts of Assistant Grade, Inspectors of Central Excise, Income Tax Sub-Inspectors of Police in CPO/CBI For the posts of Divisional Accountant/Auditors/UDCs Main Exam , will be conducted on 30 01 2000

**Last Date for Receipt of Applications : 19 11 1999**

**N.B : For further details see EMPLOYMENT NEWS dated 30 October--- 5 November, 1999.**

#### **SPECIAL SELECTION BOARD (CPOs-2000)**

Recruitment of Assistant Commandants in CRPF/BSF/ ITBP/SSB

**[Total Vacancies : 155]**

#### **ELIGIBILITY CRITERIA**

**Educational Qualifications :** Degree from a recognised University or equivalent

**Age Limits :** Not below 19 years and not above 25 years as on 01 08 2000

Relaxation in upper age limit for certain categories

**Physical & Medical Standards :** Refer to Employment News

**Last Date for Receipt of Applications : 25 11 1999**

**N.B. : For further details see EMPLOYMENT NEWS dated 15-22 October, 1999.**

#### **RAILWAY RECRUITMENT BOARD, AJMER**

Recruitment to posts of technical grades viz Junior Engineer, Technicians etc

**Last Date for Receipt of Applications : 13 12 1999**

**N.B. : For eligibility criteria and other details see EMPLOYMENT NEWS dated 13-19 November 1999.**

#### **RESULTS ANNOUNCED**

#### **BANKING EXAMS**

- BSRB, Calcutta PO Exam Held on 04 07 1999
- BSRB, Lucknow Clerical Exam Held on 06 12 1998 & 20 12 1998 (Final Result)
- SBI, Associate Banks PO Exam Held on 18th July, 1999

**SSC Combined Graduate Level Preliminary Test : Held on 04 07 1999**

#### **RAILWAY EXAMS.**

- RRB, Jammu -Srinagar Exam Held on 18 07 1999
  - RRB, Secunderabad (A/c Clerks) Exam Held on 25 07 1999 (Final Result)
  - RRB, Bhopal Exam Held on 01 08 1999 (Final Result)
  - RRB, Chennai Exam Held on 29 08 1999
  - RRB, Secunderabad Exam Held on 10 01 1999 (Final Result)
- UCG Test for JRF & NET : Held on 27.06.1999**
- UPSC NDA Exam, Held in June 1999.**

#### **EXAM DATE REMINDER**

<b>Name of Examination</b>	<b>Date of Exam.</b>
Clerical Posts in RBI Exam	14.11.1999
BSRB, Chandigarh Clerical Exam	21.11.1999
BSRB, Baroda Clerical Exam	28.11.1999
Management Aptitude Test (MAT)	05.12.1999
BSRB, Jaipur Clerical Exam	05.12.1999
BSRB Lucknow Clerical Exam	12&19.12.1999
UGAT	19.12.1999
CSIR/UGC Tests for JRF & NET	19&26.12.1999
BSRB, Patna Clerical Exam	09.01.2000
BSRB, Delhi Clerical Exam	16.01.2000
Main Exam for Assistant Grade/ Inspectors of Central Excise/Income Tax, Sub-Inspectors of CPO/CBI	21 to 23.01.2000
BSRB, Bhubaneshwar Clerical Exam	23.01.2000
SSC UDC/Auditors/Divisional Accountant (Main) Exam	30.01.2000
CRB (State Bank Group)PO Exam	13.02.2000
SSC Combined Preliminary (Graduate Level) 2000 Exam	27.02.2000
SSC Combined Preliminary (Metric Level) 2000 Exam	28.05.2000
SSC Transmission Executive Exam	11.06.2000
SSC Steno Grades 'C' & 'D' & Clerk Grade Main - 1999	25.06.2000

# PRATYOGTA KRANT

PROGRESSIVE  
40%  
ISSUE

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## **BJP Suffers Jolt in Bihar**

The BJP suffered a major set back by failing to retain any of the three seats it contested in the October 28 elections to four Lok Sabha seats in Bihar.

In the first test of its popularity since the formation of the Government, the BJP has come as a copper and given a breather to the ruling Rashtriya Janata Dal in the State in the context of the Assembly elections early next year.

The BJP lost the two North Bihar seats in Purnea and Bhagalpur as also the Rajmahal (ST) seat in South Bihar, all of which it had won in the 1998 Lok Sabha elections. Its nominee, Mr Prabhakar Chandra Tiwari lost to the CPM candidate, Mr Subodh Roy, by a margin of over 50,000 votes in Bhagalpur, while Mr Jai Krishna Mandal was trounced by margin of 25 lakh votes by the Independent candidate, Mr Rajesh Ranjan alias Pappu Yadav in Purnea. The Congress (I) nominee, Mr Thomas Hansda, wrested the Raj Mahal (SI) from the BJP nominee, Mr Som Marandi, who had won it last time by just nine votes, by a margin of 62,000 votes.

However, its ally, the JD(U) managed to retain the Khagaria seat with its candidate Mrs Renu Devi, posting a victory over the RJD nominee, Mrs Naina Rana, by a margin of about 38,000 votes.

With the results for all 54 Lok Sabha seats in the State being declared, the BJP (23) and the JD(U) 18, together have 41 seats, while the RJD with seven, the Congress(I) with four and the CPI(M) with one have a combined tally of 11.

## **Phalke Award for B.R. Chopra**

Mr B R Chopra, pioneer of socially relevant mainstream cinema, has been selected for this year's Dada Saheb Phalke Award for his 'outstanding contribution' to film-making. The award, highest official recognition for film personalities consists a cash prize which has been raised, this time from Rs one lakh to Rs two lakhs, a 'Swam Kamal' and a shawl.

A journalist-turned film-maker, Mr Chopra gave commercial Hindi Cinema a new turn with film like 'Kanoon', 'Dhool Ka Phool', 'Naya Daur' and 'Dharamputra' all of which tackled contemporary social issues. 'Kanoon' looked at the loopholes in the legal system, 'Dhool Ka Phool' questioned the social stigma attached to children

born but of wedlock; 'Naya Daur' was inspired by the idea of Sardarni, and 'Dharamputra' explored the relations between Hindus and Muslims after partition.

Mr Chopra's transition from cinema to the small screen, was remarkably successful with 'Mahabharata' becoming a national addiction. Born in 1914 in Punjab, now in Pakistan, Mr Chopra came to Mumbai after partition and started off as a journalist, later moving to cinema. He was the best film-maker to get the Best Director National Award for his film "Hamrazz".

## **Cyclone Batters Orissa**

A super cyclonic storm with a gale speed of 250 km per hour pounded Paradip port on October 29, flattening at least 2000 houses and triggering



house collapses killing several persons in Orissa and wounding 15 in West Bengal.

Paradip town in Orissa was devastated and extensive damage was caused to port installations in what could be the worst cyclone in the State's history. Normal life in Orissa was paralysed as the gale severely disrupted power and telecommunications system and uprooted trees before moving towards West Bengal after losing much of its fury. Weathermen in Calcutta said houses power and telecom installations were damaged. In Kendrapara, Bhadrak, Balasore, Keonjhar, Jajpur and Mayurbhanj districts of Orissa

The Orissa Government called in the Army and in Air Force for rescue and relief work. Officials sources said the Government had sought six Mi-helicopters for dropping relief materials in the cyclone-affected areas.

The Army had launched 'Operation Sahayata' in the cyclone-ravaged

parts, an Army spokesman said in New Delhi. More than 2,000 troops, including eight columns of Infantry, five columns of Engineers and two field ambulances and signals companies, had been flown from Ranchi and Calcutta to Bhubaneswar and Balasore respectively.

## **LS Nod for Extending Reservation**

The Lok Sabha on Oct 27 unanimously passed the 84th Constitution (amendment) Bill extending reservation of seats in Parliament and State Assemblies for Scheduled Castes and Scheduled Tribes by another ten years beyond 2000.

Earlier, while moving the Bill, the Minister for Law, Justice and Company Affairs, Mr Ram Jethmalani, announced that a three-day convention of MPs belonging to Scheduled Castes and Scheduled Tribes would be held before the winter session to discuss all pending issues on reservations and the conclusions reached would be placed before Parliament for discussion.

Mr Jethmalani said the Bill had the support of all sections of society as there was concern over the substantial failure of this provision of the Constitution.

Initiating the debate, Mr Buta Singh of the Congress (I) said the scope of reservations should be extended to the Rajya Sabha and the Legislative Council as well as specialised institutions, judiciary and armed forces. It was unfortunate that even after 50 years of reservation, there was not much change in the status of SCs/STs. Steps should be taken so that the Government should not come again for extension of reservation period.

Mr M A Kharbela Swain (BJP) supported the Bill but when he asked why a time frame should not be fixed for reservations to SC and ST as this policy could not be allowed to continue indefinitely there was a lull.

A number of members, belonging to the SC and ST category, disputed his suggestions branding it as an indirect opposition to the constitutional amendment seeking continuation of the reservation for another decade. Mr Swain who was frequently interrupted by the rate members sought to highlight that the reservation benefits had not percolated down to the serving members of the depressed castes.

\*\*\*

# NEWS IN BRIEF

## NATIONAL

Oct. 1 : India criticised the western developed countries for prescribing unilateralist remedies for development and peace and security of African States without taking ground realities into account.

□ The Supreme Court admitted a petition from Bodoland Autonomous Council (BAC) challenging a notification issued by the Assam Government reducing the area under the Council by 347 villages.

Oct. 2 : The Union Home Ministry cracked down on certain voluntary organisations on the grounds that they have been indulging in activities which were in some way political in nature during the current Lok Sabha polls

□ Prof R. S Krishna (88), a distinguished scientist, died at Bangalore

Oct. 3 : At least 18 persons killed in violent incidents in Assam, Tripura and Bihar as the fifth and final phase of polling ended in which an estimated 56 per cent of 133 million electors cast their votes.

□ The State working President of the Indian National League and the former Deputy Speaker of the Kerala Assembly Mr. M.J. Zakaria Salt, died at Kochi. He was 58

Oct 4 : The Election Commission formally informed the Cabinet Secretary, Mr. Prabhat Kumar, that with completion of five phases of polling throughout the country, the Union Government would proceed with "its normal business without reference to Commission".

□ The 15th Law Commission of India, headed by Mr. Justice B.P. Jeevan Reddy, recommended stringent legal measures against corrupt public servants, including forfeiture of their ill-gotten property.

Oct.5 : Veteran Gandhian thinker and social worker Ms. Madanlal Narayan, died at the Sevagram Medical College Hospital at Wardha.

She was 82.

□ India's first ever maritime exposition begins at the SAG Grounds at Panj.

□ The former President, Dr Shankar Dayal Sharma, was awarded the 1998 Indira Gandhi Award for National Integration.

Oct 6 : The Bharatiya Janata Party and its allies in the National Democratic Alliance (NDA) appeared to be inclining their way towards establishing a kind of precarious majority in the 13th Lok Sabha.

□ In all 'consuming saffron storm' in the capital of political heavyweights like the former Union Finance Minister, Dr. Manmohan Singh, besides two other Congress Working Committee members, Mr. R.K. Dhawal and Ms. Meira Kumar defeated

Oct. 7 : With the results available for almost all the Lok Sabha constituencies, the BJP and its allies in the National Democratic Alliance notched up a reasonably comfortable majority.

□ The Sikkim Democratic Front (SDF) led by Chief Minister, Mr. Pawan Kumar Chamling has swept back to power in the State with a two-third majority bagging 24 out of 31 seats declared.

Oct. 8 : The Supreme Court dismissed two sets of related review petitions—one, from the four condemned prisoners and the other, from the Central Bureau of Investigation (CBI) against the quota May 11 judgement in the Rajiv Gandhi Assassination Case.

□ The Telugu Desam President and Chief Minister of Andhra Pradesh, Mr. N. Chandrababu Naidu formally communicated to the President, Mr. K.R. Narayanan that the 29 newly-elected members of his party in the New Lok Sabha would extend support by the National Democratic Alliance (NDA) led by the Prime Minister, Mr. Atal Behari Vajpayee.

Oct. 9 : The former Chief of Army Staff, General (Retd.), Shankar

Rajchowdhury, said the action taken by the Defence Minister, Mr. George Fernandes, during the Kargil conflict was "right appropriate and without lapse".

□ The Chief Justice, Mr Justice A.S. Anand, emphasised the need for a judiciary which cares for its people and is willing to come forward in every possible way to provide quick justice to all.

Oct.10 : With the unanimous election of Mr. Atal Behari Vajpayee as leader of the Parliamentary Party to the Bharatiya Janata Party and the National Democratic Alliance, the formalities for his swearing-in as Prime Minister for the third time was completed.

□ The Election Commission constituted the 13th Lok Sabha by issuing a notification containing names of winners of all 538 of the 543 Lok Sabha constituencies which went to polls in five phases beginning September 5.

Oct. 11 : Mr Atal Behari Vajpayee was appointed Prime Minister by the President Mr. K.R. Narayanan. Mr Vajpayee was called to Rashtrapati Bhavan to receive his letter of appointment after the President had satisfied himself.

□ The Telugu Desam Parliamentary Party unanimously decided it will not join the NDA coalition but will continue issue-based support from outside.

Oct.12 : The DMK decided to join the National Democratic Alliance (NDA) Government led by the Prime Minister, Mr. Atal Behari Vajpayee, and left it to the discretion of the Prime Minister to decide on the number of party MPs and their portfolios who will find a place in his Government.

□ The Defence Minister, Mr George Fernandes articulated India's preparedness to enter into international collaboration and joint ventures to serve the country's national priorities in the defence sector.

## IN NEWSWEEKS

Oct. 13 : After taking the oath as Prime Minister for the third time, Mr. Atal Behari Vajpeeyee chose to put his trust in the Big four comrades in recent years.

Oct. 14 : Freedom Fighter Mr. Nand Lal Ahuja died at Ludhiana on Oct. 13 after prolonged illness. He was 83.

□ A new four-party coalition Ministry, comprising the United Democratic Party, the BJP, the Nationalist Congress Party and the People's Democratic Movement headed by Mr. B.B. Lyngoh of the UDP was sworn in Meghalaya.

Oct 15 : Ms. Gargi Parsai, correspondent of "The Hindu" was presented with the World Food Day Award for 1999 for her contribution in raising public awareness about agriculture-related issues.

□ The Union Law Minister, Mr. Ram Jethmalani announced that the Government would in consultation with various political parties try to introduce a Bill amending the Indian Citizenship Act barring persons of foreign origin from occupying high public posts like President and Prime Minister.

Oct 16 : In his first broadcast to the nation in his new Prime Ministerial innings, Mr. Atal Behari Vajpeyyee promised to preside over an inclusive, egalitarian, secular and forward-looking region which would attend to the urgent tasks of promoting economic growth and of providing citizen's basic needs.

□ The Deputy Chairman of Rajya Sabha and the distinguished Human Development Ambassador of the United Nations Development Programme was elected unanimously as the President of the Inter-Parliamentary Council in Berlin.

Oct. 17 : The Kilo Force, which was raised recently from Rashtriya Rifles (RA) personnel, is planning a massive operation against militants.

□ The inflation rate rose marginally by 0.7 percentage points to 1.95 per cent for the week ended October 2, as vegetable prices shot up by a hefty 18 per cent.

Oct 18 : At least 25 persons were killed and thousands rendered homeless as a severe 200-kmph.

cyclonic storm lashed through Orissa's coastal areas.

□ Two grassroots social workers, Devika from Tamil Nadu and Nhem Raj Sharma from Jammu & Kashmir were selected for this year's "Youth Volunteers Against Poverty Award" for their contribution towards helping people in their fight against poverty.

Oct. 19 : Ms. Sonia Gandhi will be the leader of the opposition in the Lok Sabha, the Congress I announced. She also decided to give up the Sellaery seat in Karnataka and retain Amethi in Uttar Pradesh.

□ A Twenty eight-member Congress I- NEP-led multi-party ministry headed by Mr. Vilasrao Deshmukh, took over the reins of administration in Maharashtra with the Chief Minister including Cabinet Minister and 14 Ministers of state.

Oct. 20 : Merely because an endorsement was not made on a 'dying declaration' of the victim's fit condition would not render it suspicious in view of other evidence indicating the truthfulness and voluntary nature of the declaration in a criminal case, the Supreme Court reiterated.

□ The veteran freedom-fighter, Mr. Ghulam Qadir Bhat, one of the three MPs who represented Jammu & Kashmir in the first Parliament of Independent India died at Sri Nagar.

Oct. 21 : Mr. Madhavrao Scindia was nominated Deputy leader of the Congress (I) in the Lok Sabha by Ms. Sonia Gandhi CPP Chairperson, while Mr. Priya Ranjan Das Munshi was appointed the chief whip.

□ Mr. B.R. Chopra, pioneer of socially relevant mainstream cinema, was selected for this year's Dada Saheb Phalke Award for his outstanding contribution to film-making.

Oct. 22 : Investigations into the nearly 13-year-old "Bofors Scandal" moved a bit forward when the first ever chargesheet in the Rs. 54-crore pay offs case was filed in a Delhi Court.

□ Mr. GMC Balayogi of the Telugu Desam took over as the Speaker of the Lok Sabha for a second consecutive term following his unanimous re-election.

Oct. 23 : The Vilasrao Deshmukh Government in Maharashtra further consolidated its position by not only winning the vote of confidence but also securing the support of nine independents.

□ Noted poet and well-known filmmaker Gulzar has been selected for Madhya Pradesh Government's Kishore Kumar Award for 1999-2000.

Oct. 24 : The Congress I reaffirmed faith in the Panchmari Declaration. After two days of deliberations Congress I Working Committee (CWC-I) said that its will not have recourse to unstable, unviable opportunistic alliances united only by the lust for office.

Oct. 25 : The U.S. Energy Secretary, Mr. Bill Richardson, arrived at New Delhi to prepare the ground for the President, Mr. Bill Clinton's trip to India early next year and lay the foundations for wide-ranging bilateral cooperations in the energy sector.

Oct. 26 : Mr. Lalit Mansingh, High Commissioner to Britain is the India's new Foreign-Secretary.

□ The entire opposition walked out of the Lok Sabha, after the Petroleum-Minister, Mr. Ram Naik, refused to give a categorical assurance on rolling back the hike in price of diesel.

Oct.27 : The Lok Sabha unanimously passed the 85th Constitution (amendment) bill extending reservation of seats in Parliament and State Assemblies for Scheduled Castes and Scheduled Tribes by another ten years beyond 2000.

Oct. 28 : The controversial Insurance Regulatory and Development Authority (IRDA) Bill, seeking to open up the Insurance Sector to private and foreign investors.

□ The Steel Ministry decided to set up a monitoring groups to oversee the implementation of new steel plants in the private sector.

Oct.29 : A supper cyclonic storm with a gale speed of 250 km per hour pounded Paradip Port, flattening at least 2000 houses and triggering house collapses killing several persons in Orissa.

□ After protracted negotiation, the Congress I and Nationalist Congress

Oct. 1 : CPI decided to give its minister and prune their alliance Cabinet in Maharashtra to 55 from 61.

Oct. 10 : Responding to desperate pleas from the Orissa Government to help it cope with the second devastating cyclone, the Union Cabinet decided to release Rs. 100 crore from the National Fund.

Oct. 31 : The deadlock over allocation of Cabinet portfolios in the Democratic Front (DF) coalition ministry in Maharashtra ended with both the Congress I and the NCP dropping Six ministers as per the agreement reached.

□ The former President, Dr. Shankar Dayal Sharma was conferred with the Indira Gandhi Award for National Integration, 1998 " In recognition of his exceptional and enduring contributions to the strengthening of the nation's national fibre and political cohesiveness.

## INTERNATIONAL

Oct. 1 : Germany and the European Union backed India's call for global efforts to urgently tackle the menace of international terrorism.

□ The Russian President, Mr. Boris Yeltsin reaffirmed his resolve to reinforce the Sino-Indian strategic partnership in a congratulatory message to his Chinese counterpart, Mr. Jiang Zemin, marking the 50th anniversary of the foundation of the People's Republic of China.

Oct. 2 : Russian forces occupied a village inside Chechnya suspected of harbouring guerrillas as warplanes continued to bomb suspected rebel bases in the breakaway Republic.

□ The high drama of the 'seizure' of Myanmar embassy in Bangkok and the hostage-taking ended on October 2. With the Active Foreign minister of Thailand, Mr. Sukhumphand Partipatra, offering himself as a prize proxy for those held captive by the group that called itself the "vigorous Burmese student warriors".

Oct. 3 : Mr. Akio Morita, the co-founder of Japan's Sony Corporation, died of pneumonia at Tokyo Hospital. He was 78.

□ The U.S. and Russia, updating

the "hot-line" concert between leaders of the world's most heavily armed nuclear powers, opened a new state-of-the-art video-conferencing centre that would enable the Russian and American nuclear officials to see and talk to each other during a nuclear related agency.

□ Four-day after the nation's worst-ever nuclear accident Japanese investigators launched a full-scale investigation into the cause of the disaster.

Oct. 4 : Pakistan acquired eight upgraded multi-purpose Mirage-III and Mirage-V fighter jets from France after a two-month delay, enhancing the strike capability of the country's airforce.

□ Mr. Amien Rais, a reformist critic of the Habibie administration and a secular-intellectual with Islamist moorings, was sworn in as the Speaker of Indonesia's new People's Consultative Assembly (MPR).

Oct. 5 : The opening of 'safe passage' between the West Bank and Gaza Strip, in accordance with an agreement reached, marks a major step towards the definition of Palestinian nationhood.

□ The Japanese Prime Minister Mr. Keizo Obuchi, replaced 16 of his 18 ministers and named a three-party coalition Government which for the first time in many years will have comfortable majority in both Houses by Parliament.

Oct. 6 : As Moscow beefed up a buffer zone in Chechnya, the Chechen President, Mr. Aslan Mashadov formally declared a state of war with Russia.

□ The Clinton administration announced that it has decided to deport to Saudi Arabia a suspect in the terrorist bombing there that killed 19 American airmen three years ago.

Oct. 7 : Russia rejected a European Union bid to mediate in Chechnya and moved to install a loyal Government-in-exile in the breakaway region.

□ Afghanistan's ruling Taliban said a US plan to push for United Nations' sanctions on the Islamic movement was unfair, but added it was ready to

talk with Washington to sort out their differences.

Oct. 8 : The former NATO Secretary-General, Mr. Javier Solana was granted an honorary knighthood by Britain's Queen Elizabeth, although he will not be called by the title 'sir'.

□ The Palestinians will not hold talks with Israel on a permanent peace accord until it changes its settlement policy in the occupied West Bank, a top Palestinian official said.

Oct. 9 : Afghanistan's Taliban Government agreed to send terrorist camps and send back to Pakistan hundreds of Islamic militants wanted for a series of sectarian killings.

□ A few hundred students staged a peaceful demonstration in Kuala Lumpur and petitioned the Malaysian Deputy Prime Minister, Mr. Abdullah Ahmad Badawi, for bringing about reforms in the country.

Oct. 10 : Iraq signed an agreement to buy satellite intelligence photographs from Russian firms which will enable the Iraqi leader, Mr. Saddam Hussein, to target his missiles at neighbouring oil-rich gulf States.

Oct. 11 : The Centre right socialist trend in the European Union or often called the 'third way' was again upheld in General Election's in Portugal. The Governing Socialist Party of the Prime Minister, Mr. Antonio Guterre, was returned to power.

Oct. 12 : The Nawaz Sharif Government was 'dismissed' by the Army top brass hours after the Prime Minister "sacked" the Army Chief, General Pervez Musharraf and appointed Gen. Khwaja Ziauddin the New Chief.

□ An international staff member of the United Nations mission in Kosovo was shot dead in the centre of the capital Pristina.

Oct. 13 : The Russian Parliament issued a new humiliating brush-off to the President, Mr. Boris Yeltsin, by rejecting for a third time his request to sack the Prosecutor-General who has been investigating corruption in the Kremlin.

Oct. 14 : A state of emergency was declared in Pakistan. The Army Chief

**Gen. Musharraf assumed the office of Chief Executive.**

□ In overwhelming rejecting the Comprehensive Test Ban Treaty (CTBT), the US Senate handed the President Mr. Bill Clinton his biggest and most humiliating foreign policy defeat. The treaty was rejected by a 51 to 48 margin and the final tally was on expected lines.

**Oct. 15 :** The Pakistan Army Chief, Gen. Pervez Musharraf said "top priority would be given to economic revival, national integration and good governance as the military took formal control of the country.

□ The United States has unequivocally said it is willing to give India not more than 15 months to dismantle import curbs on over 2,000 agricultural, textile and industrial products.

**Oct. 16 :** Pakistan's new military ruler, Gen. Pervez Musharraf set in motion what is being termed as a ruthless process to hold previous heads of Government including former premiers, Ms. Benazir Bhutto and Mr. Nawaz Sharif, accountable for their acts of omission and commission by freezing their bank accounts.

□ European Union Nations put fresh policy decisions regarding Pakistan on hold following the military coup in the country.

**Oct. 17 :** Iran has rejected the United State latest call for a dialogue with the Islamic Republic, saying Washington lacked the 'political and national will' to better its relations with Teheran.

**Oct. 18 :** Pakistan's exiled former leader, Benazir Bhutto, convicted earlier this year for corruption during her rule, praised coup leader General Pervez Musharraf's plan to crack down on graft.

□ Pakistan-based Kashmiri militant groups welcomed the prospect of military rule, and urged the new regime of Gen. Pervez Musharraf not to compromise on the Kashmir dispute with India.

**Oct. 19 :** Indonesia's top legislature endorsed East Timor's decision to split from Indonesia after almost 24 years of Jakarta's

sometimes brutal rule.

□ Queen Elizabeth welcomed Mr. Jiang Zemin with official ceremony at the start of his four-day state visit to Britain, the first by a Chinese President.

□ The Commonwealth banned Pakistan's military Government from attending the groupings summit in Durban.

**Oct. 20 :** Mr. Abdurrahman Wahid, Islamist scholar with gilt-edged secular credentials, was sworn in as Indonesia's new President after he defeated the popular leader of the masses, Ms. Megawati Sukarnoputri, in a transparent election.

□ The passage corridor linking the Gaza Strip with the Southern West Bank finally opened.

**Oct. 21 :** Mrs. Megawati Sukarnoputri-charismatic daughter of Indonesia's founding father, Sukarno, and an emerging cult-figure in the counties of democratic renaissance-became the new Vice-President.

□ This visiting Chinese President, Mr. Jiang Zemin, met the British Prime Minister, Mr. Tony Blair on the third day of his State visit that was dominated by media coverage of protests by human rights activity and Pro-Tibet supporters.

**Oct. 22 :** Another major earthquake struck Central Taiwan, leaving at least 140 people injured, damaging buildings and causing dozens of fires and partial power blackouts.

□ The 10-members of the Association of Southeast Asian Nation (ASEAN) as well as Japan, China and South Korea launched a new East Asian Forum.

**Oct. 23 :** A Russian mechanised column advanced to positions inside Chechnya and blocked off the last road leading in and out of the rebel region overnight.

□ As the millennium approaches, Israel and Jordan locked in a battle over attracting tourists to a new site on the Holy Land pilgrimage "route where Jesus was baptised".

**Oct. 24 :** The Clinton Administration told the Taliban in very plain terms that it is looking for "action".

not "wonder" in the hunting of Osama Bin Laden. The State Department was reacting to a report out of Kabul that the Taliban were "willing to discuss Osama Bin Laden and other issues with the United States."

**Oct. 25 :** The Pakistani military ruler, Gen. Pervez Musharraf, appointed four members to the National Security Council, two Cabinet Ministers and the Attorney-General nearly two weeks after the October 12, coup.

□ India signed a crucial extradition treaty with the United Arab Emirates, clearing the decks for extradition of terrorists, economic offenders and other criminals from the UAE.

**Oct. 26 :** The Albanian Prime Minister, Mr. Pandeli Majko, said that he is reigning after losing the leadership of the ruling Socialist Party, throwing Europe's poorest country back into political uncertainty.

□ The United Nations Security-Council unanimously voted for a force of nearly 11,000 troops and peace for East Timor.

**Oct. 27 :** Armenia's Prime Minister Mr. Vazgen Sarkisian was killed in a gangster-style shoot out in Parliament.

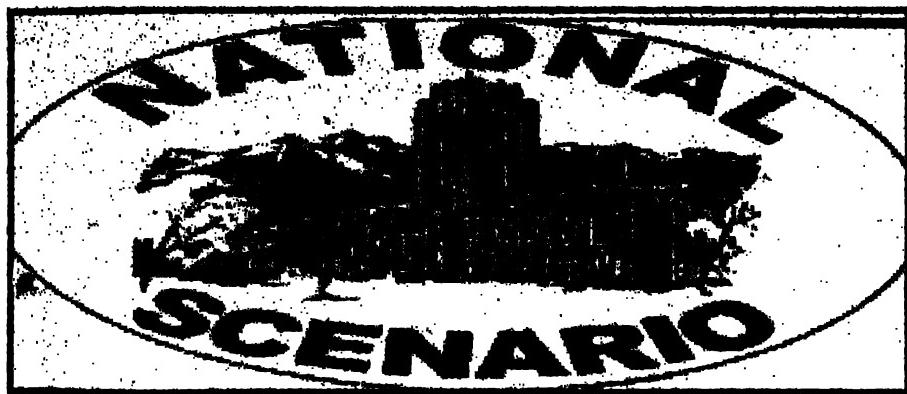
□ The Iranian President, Mr. Mohammad Khatami, began a three-day visit to France the first to an European country since his March-visit to Italy.

**Oct. 28 :** Russian jets flew to combat missions in Chechnya targeting Grozny and outlying regions in the heaviest bombing since federal forces attacked the breakaway region.

**Oct. 29 :** The East Timorese independence leader, Mr. Xanana Gusmao was selected for the European Parliaments Sakarov Prize for his "Spirit of Freedom".

□ In a sign of worsening relations between Russia and Georgia, Moscow denounced Tbilisi's plan to seek NATO membership.

**Oct. 30 :** Even as Indonesia began the final phase of its military pull out from East Timor, Mr. Xanana Gusmao, the pro-independence leader of the world's latest sovereign state-to-be, called for friendship between his country and Jakarta.



### Verdict '99

By giving the BJP-led omnibus alliance a comfortable working majority in the 13th Lok Sabha, the electorate has returned a verdict that is more decisive than in 1998. The combine which has as many as 24 partners, has succeeded in winning enough numbers to form a Government, thanks to the strategic alliance it had struck with regional parties having a dominant presence in the various states, the Telugu Desam in Andhra Pradesh and the DMK in Tamil Nadu, for instance. What is significant, however is that the BJP's

own tally has remained just about the same as in the previous Lok Sabha and the fresh accretions this time have come from its allies, old and new, the fact that the leading partners dependence on others stands considerably enhanced has heightened to challenge for the National Democratic Alliance in the task of Governance. Strategically, the Congress's inability to take a clear stand on the coalition question, caught us it was in a Hamletian fashion between the rhetoric of single party Government and the political imperative of a multi-party arrangement would seem to have

cost it dearly in electoral terms.

In the 1998 Lok Sabha elections, the advent of Mrs. Gandhi as the chief campaigner was believed to have set the Congress (I) on a resurgence trajectory and its tally of 141 was attributed substantially to her charisma and this perception was reinforced by the party's exemplary performance in the Assembly elections last year when it wrested power from the BJP in Rajasthan and Delhi; besides retaining power in Madhya Pradesh. But this time round the party is left with much lower tally. The exception that the party would be able to repeat its impressive showing in the current parliamentary polls in these States has been belied, with the BJP sweeping Delhi, winning handsomely in Rajasthan and retaining its 1998 position in Madhya Pradesh. In many places, however, the peoples setting anger against the ruling establishment has found expression, as for example in Orissa against the Congress I, in Bihar against Mr. Laloo Prasad Yadav's Rashtriya Janta Dal, in Karnataka against the Janata Dal (United), on NDA constituent, in Punjab against the Akali Dal-BJP Coalition and in Uttar Pradesh against the BJP. There have of course been other factors which are peculiar to the respective States. Mr. Laloo Yadav's corruption in Bihar, the split in the ruling Shiromani Akali Dal in Punjab and the internal bickering that the JD-U-BJP alliance had set-off down the line in Karnataka.

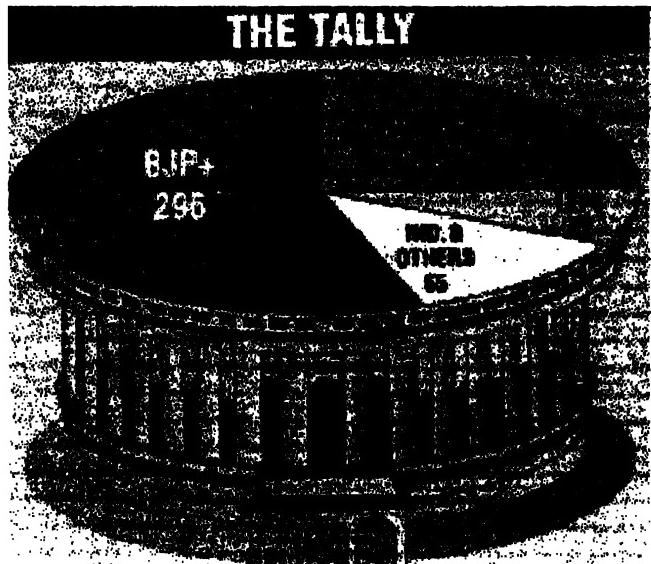
Given the lackluster performance of the Kalyan Singh Government and the intense cast-linked infighting among the state BJP leaders, the party's poor showing in Uttar Pradesh was not unexpected. The surprise elements lay in the substantial gains made by Mr. Mulayam Singh Yadav's Samajwadi Party and Kashi Ram's Bahujan Samaj Party.

The one State where the incumbency factor has worked very favourably in Andhra Pradesh, when Mr. N. Chandrababu Naidu Telugu Desam (TDP), together with the BJP, has won over three-fourths of the 42 Lok Sabha seats and secured for itself

### THE TALLY

BJP+  
295

NDA  
OTHERS  
55



BJP & ALLIES			MDMK	4
BJP	182		MGDK	1
BJD	10		MSCP	1
DMK	12		PMK	5
HVC	1		SAD	2
IND	5		Shiv Sena	15
JD(U)	20		Tinamool	8
Loktantrik	1		TDP	29
			Total	295

CONG & ALLIES	
Congress	112
AIADMK	10
KECM	1
MUL	2
RJD	7
RLD	2
Total	134

LEFT	
CPI	4
CPI (M)	32
FBL	2
KEC	1
RSP	3
Total	42

OTHERS	
BSP	14
Samajwadi	26
NC	4
Ind. & Others	21
Total	65

Total Elective Seats : 543;  
Election Held : 538;  
Graphic based on : 537  
Results : KBK Poll graphics

## PORTFOLIOS OF NEW UNION MINISTERS

Following is the list of the portfolios of the Council of Ministers.

Prime Minister : Mr. Atal Behari Vajpeya.

### CABINET MINISTERS

1. Mr. L.K. Advani : Home
2. Mr. Ananth Kumar : Culture, Youth Affairs and sports.
3. Mr. T. R. Baalu : Environment and Forests
4. Ms. Mamata Banerjee : Railways
5. Mr. George Fernandes : Defence
6. Mr. Jagmohan : Urban Development
7. Dr. Satyanarayan Jatiya : Urban Employment and Poverty Alleviation.
8. Mr. Ram Jethmalani : Law, Justice and Company Affairs
9. Mr. Manohar Joshi : Heavy Industries and Public Enterprises
10. Dr. Murli Manohar Joshi : Human Resource Development and Science and Technology
11. Mr. P.R. Kumar Mangalam : Power
12. Mr. Pramod Mahajan : Parliamentary Affairs and Water Resources
13. Murasoli Maran : Commerce and Industry
14. Mr. Ram Naik : Petroleum and Natural Gas
15. Mr. Nitish Kumar : Surface Transport
16. Mr. Jewel Oram : Tribal Affairs
17. Mr. Ram Vilas Paswan : Communications
18. Mr. Naveen Patnaik : Mines and Minerals
19. Mr. Sunderlal Patwa : Rural Development
20. Mr. Suresh Prabhu : Chemicals and Fertilizers
21. Mr. Kashiram Rana : Fertilizer
22. Mr. Shanta Kumar : Consumer Affairs and Public Distribution
23. Mr. Jaswant Singh : External Affairs
24. Mr. Yashwant Sinha : Finance
25. Mr. Sharad Yadav : Civil Aviation

### MINISTERS OF STATE (Independent Charge)

1. Ms. Maneka Gandhi : Social Justice and Empowerment
2. Mr. Arun Jaitley : Information and Broadcasting
3. Mr. M. Kannan : Nonconventional Energy Sources
4. Mr. Dilip Ray : Steel
5. Ms. Vasundhara Raje : Small-scale Industries
6. Mr. N.T. Shanmugham : Health and Family Welfare
7. Ms. Uma Bharati : Tourism

### MINISTERS OF STATE

1. Mr. Ramesh Bals : Chemicals and Fertilizers
2. Mr. Bijoya Chakravarty : Water Resources
3. Mr. Shriram Chauhan : Parliamentary Affairs
4. Mr. Bandaru Dattatreya : Urban Development
5. Mr. Jaisingh Rao Patil : HRD.
6. Mr. Santosh Gangwar : Science and Technology
7. Mr. Chaman Lal Gupta : Civil Aviation
8. Dr. Vallabhai Kathiriya : Heavy Industries and Public Enterprise.
9. Mr. Faggan Singh Kulaste : Parliamentary Affairs
10. Mr. V. Dhananjay Kumar : Finance
11. Mr. Bangaru Laxman : Planning and Programme Implementation
12. MS. Sumitra Mahajan : HRD
13. Mr. Subhash Mahajan : HRD
14. Mr. Subhash Maharsa : Rural Development
15. Ms. Jayawanti Mehta : Power
16. Mr. Munni Lal : Labour and

### Employment

17. Mr. Om Prakash Abdulali : Commerce and Industries
18. Mr. Ajit Kumar Panja : External Affairs
19. Mr. Hiran Pathak : Defence
20. Mr. Devendra Pratap : Surface Transport
21. Mr. E. Ponnuswami : Petroleum
22. Mr. A. Raja : Rural Development
23. Mr. Q. Rajagopal : Law, Justice and Company Affairs
24. Dr. Raman : Commerce and Industries.
25. Mr. N. G. Ramachandran : Textiles
26. Mr. Vidya Sagar Rao : Home
27. Mr. S.B. P.P.K. Satyanarayanan Rao : Agriculture
28. Mr. Bachi Singh Rawat : Defence
29. Mr. Syed Shahrawaz Hussain : Food Processing
30. Mr. Tapan Sikdar : Communication
31. Mr. Digvijay Singh : Railways
32. Mr. T. H. Chaoba Singh : Culture, Youth Affairs, Sports
33. Mr. V. Sreenivasa Prasad : Consumer Affairs and Public Distribution.
34. Mr. I.D. Swami : Home
35. Dr. (Ms.) Rita Verma : Mines and Minerals
36. Mr. Balasaheb Vilke Patil : Finance
37. Mr. Hukumdeo Narayan Yadav : Agriculture

(Unallocated portfolios will be looked after by the Prime Minister. Ms. Vasundhara Raje will also be assisting the Prime Minister in handling the Ministries of Personnel, Public Grievances and Pensions, Department of Energy, and Department of Space. Mr. Dilip Ray and Mr. Santosh Gangwar will also assist the Minister for Parliamentary affairs.)

a more than comfortable majority in the Assembly. Although in a way Mr. Naidu took a calculated risk by forging a formal tie-up with the BJP, his idea was also to derive some electoral advantage from the perceived positive hinge Mr. Vajpayee in the post-Kargil context.

### **70-Member Ministry Sworn In?**

The largest Vajpayee Government will be dominated by the old familiar faces. After taking the oath as Prime Minister for the third time, Mr. Atal Behari Vajpayee chooses to put his trust in the Big four comrades of the recent years. It is not surprise, then that Mr. L.K. Advani retains the Home portfolio, Mr. George Fernandes mans the defence, Mr. Jaswant Singh continues with External affairs and Mr. Yashwant Sinha looks after finance.

The Cabinet has new faces in Mr. Murasoli Maran [Commerce and Industry], Ms. Mamata Banerjee [Railways], Mr. I.R. Baalu [Environment & Forests], Mr. Ram Vilas Paswan [Communications] and Mr. Sharad Yadav Civil Aviation, Mr. Ram Naik gets elevated to a full Cabinet position [petroleum]. But the most inspired and freshest face in the new Government belongs to Mr. Arun Jately, by far the most "modern" and moderate voice on the second rung of the BJP leadership; he gets to be a Minister of State with Independent Charge of Information and Broadcasting.

Mr. Sikandar Bakht, who held Industry portfolio, who has been dropped, while S.S. Barnala, who was in charge of Agriculture, has lost the Lok Sabha election. The presumed Akali replacement for Mr. Barnala, Mr. Shukhdey Singh Dhindsa, refused to join the Government so he thought that the "Programme Implementation Ministry" was not good enough for him.

The Cabinet also benefits from the Ministerial experience of Ms. Banerjee, Mr. Paswan and Mr. Sharad Yadav. On the face of it, Mr. Advani may find himself having to share the limelight with other seniors.

Almost all observers were surprised at the presence of as many as 11 members from Bihar, including

five full-fledged Cabinet Ministers. This has been explained as the National Democratic Alliance's most cohesive message to the people of Bihar that the combine would bring political prosperity to the State. Bihar along with Orissa is scheduled to hold Assembly elections over the next few months.

Bihar is followed by Tamil Nadu with eight members in the Council of Ministers, including three Cabinet ranks. Maharashtra and Madhya Pradesh also have eight representative each. Uttar Pradesh has only six, including Mr. Vajpayee himself.

### **Chargesheet Filed In Bofors Case**

Investigations into the nearly 13-year-old "Bofors Scandal" moved a bit forward when the first ever chargesheet in the Rs. 64 crore payoff case was filed in a Delhi Court on Oct. 22-nine years after the Central Bureau of Investigation [CBI] registered the case.

The "Scandal" that reflected political equation not nearly a decade is now seen primarily as a means to "take care" of Ms. Sonia Gandhi's political career.

As expected for too long, the chargesheet names as accused the former Prime Minister, Rajiv Gandhi, the former Defence Secretary Mr. S.K. Bhatnagar, the Italian businessman and friend of the Gandhi family, Mr. Ottavia Quattrochi, the former Bofors agent, Mr. Wim Chadha, the former Bofors President, Mr. Martin Arabo and M/s AB Bofors of Sweden.

Rajiv Gandhi's name appears in Column [2] of the chargesheet with the remark "not sent up for trial since he was assassinated in May 1991. However, it mentions the charge of conspiracy, cheating and offences under the provisions of the Prevention of Corruption Act, 1947 against Rajiv Gandhi who awarded the Rs. 1.437 crore contract to AB Bofors in March 1986.

According to the chargesheet, investigations disclosed that Mr. Bhatnagar, Mr. Chadha, Mr. Quattrochi, Mr. Arabo, M/s. Bofors and Rajiv Gandhi were parties to a

criminal conspiracy in awarding the contract to M/s AB Bofors for Supply of guns by misusing their office and by committing various acts of omission and commission.

The fact that Mr. Quattrochi, Mr. Chadha and the Hinduja brothers were appellants in Swiss Courts and were stalling transfer of documents to India goes to prove that commissions was paid by Bofors and received in their accounts it said. The fact that Mr. Chadha and Mr. Quattrochi transferred the funds to another was primarily to avoid detection and evading the process of law.

### **Cabinet Nod for Insurance Bill**

The Union Cabinet on Oct. 20, approved the draft of the President's address to the joint session of Parliament. The Cabinet also approved the Insurance Regulatory Authority [IRA] Bill for introduction in the current session of the Lok Sabha, the subject to the availability of time.

The main agenda included approval of legislation to replace three ordinances pertaining to grant of 100 per cent tax exemption to donations made for the Kargil fund, increase in the corpus of the Contingency Fund of India to take care of the election expenses and amendments to the Central Vigilance Commission Act to give effect to the guidelines of the Supreme Court.

Time permitting the IRA Bill, which would permit the entry of private and foreign companies in the insurance sector, would also be introduced in the Lok Sabha, before Parliament adjourns on October 29. The new IRA Bill would see a slight modification from the one which was introduced by the Finance Minister, Mr. Yashwant Sinha, during the Budget session of Parliament, since the original proposal for foreign investment was up to 40 per cent of the equity of the private company, comprising 26 per cent equity for foreign companies and 14 per cent for non-resident Indians (NRIs) and overseas corporate bodies (OCBs) which have predominant Indian ownership.

However, the Parliamentary Standing Committee on Finance, which went into the Bill suggested that the 40 per cent limit be scaled down to 26 per cent since the Bill has the provision that Indian promoters would also have to shed their holding to 26 per cent over a period of time. Consequently, it was decided that the share of the NRIs and the OCBs be squeezed into the 26 per cent foreign component and this provision is likely to be reflected in the new Bill which Mr. Yashwant Sinha will present to Parliament.

### Fractured Mandate in Maharashtra

Despite the reverses suffered in the State in the Lok Sabha elections, the Congress I has emerged as the single largest Party in Assembly in Maharashtra. Nationalist Congress Party [NCP] leader Sharad Pawar's image as a major national political figure, carefully built up and marketed through his years in politics by a friendly Mumbai has been shattered by the Assembly results.

Thus, which the NCP-Congress I split enabled the Shiv-Sena-BJP alliance to hang on to several Lok Sabha seats, public anger against its Government ensured that this success could not be replicated in the Assembly election. Assembly segments were lost even where the Shiv-Sena-BJP managed to hang on to the Lok Sabha, reflecting the general decline in the right-wing alliance's vote share. Although it is too early to work out specific details, it seems parabolic that a united Congress challenge would have seen the BJP decimated in all but a handful of Assembly seats.

The political stability in Maharashtra ended on October 16, when a Congress I-Nationalist Congress Party-led alliance with six other smaller parties as partners who invited by the Governor, Dr. P.C. Alexander, to form a new Government and Mr. Vilasrao Deshmukh was sworn in Chief Minister and NCP got the deputy Chief Ministership post.

The NCP-Congress I formation was put together after days of hard bargaining. There was much dithering.

### MAHARASHTRA ASSEMBLY

Total Seats	288
BJP	89
Shiv Sena	56
Congress (I)	75
NCP	58
PWP	5
BBM	3
CPI(M)	2
Janta Dal (s)	2
Samajwadi Party	2
GRP	1
NPP	1
RPI	1
SJPM	1
Independents	12

on both sides, the two going to prologue discussions on details and at one point on hour or so before the Governor deadline for advising proof of majority support-they nearly fell out on the speakership issue but managed to work out a formula the speaker was picked up later. After the Coalition was finally clinched as both sides expressed satisfaction. The NCP said it would be "a coalition of all partners".

### Andhra Pradesh : A Clear Majority for TDP

Beating back a spirited Congress (I) challenge N. Chandrababu Naidu steered the Telugu Desam Party-Bharatiya Janata Party alliance to a phenomenal victory in the Assembly elections in Andhra Pradesh.

Chandrababu Naidu and 30 of his Cabinet Ministers were reelected. The BJP improved its position, particularly in the Telengana region where it wrested seats from the Congress I. The BJP hold only two seats in previous Assembly.

The TDP's massive mandate exceeded its own estimate. A seemingly reinvigorated Congress I, under the leadership of Pradesh Congress I committee Chief Y.S. Rajasekhara Reddy, was widely expected to give a tough fight or if not defeat the TDP. Favourable opinion poll led exit poll predictions notwithstanding, the success of the TDP was never taken for granted, more so in the context of the type of near invincibility built up around the party by the

### Congress' Campaigns Continues

Significantly, the TDP went to the polls on highlighting its performance in government rather than making attractive promises or by raising emotional issues. If an anti-incumbency factor existed Chandra babu Naidu seems to have overcome.

### ANDHRA PRADESH

Total Seats	294
Elections held	293
TDP	180
BJP	12
Congress (I)	90
AIMIM	4
CPI(M)	2
Independents	5

The Congress (I), which had visions of a grand revival, was well shocked, although it improved its presence in the Assembly to go from a mere 26 [short of the minimum required for its leader to get recognised the leader of the opposition] in 1994. The PCC(I) chief said that the party would accept the people verdict and attributed to the coming together of the BJP and the TDP.

### Congress Victory in Karnataka

The Congress (I) made a spectacular comeback to power in Karnataka winning over substantial section its traditional vote base which it had lost to the Janata Dal in the 1994 Assembly elections. It won 133 seats in the 224-member Legislative Assembly. The BJP which had run a very confident campaign despite saddled with an alliance partner it did not want, won 44 seats making a marginal increase over its 1994 tally. Its tally, the Janata Dal [United], was all but wiped out. It won just 19 seats, with former Chief Minister J.H. Patel and a large number of its Ministerial colleagues defected by large margins. The Janata Dal (Secular) led by former Prime Minister H.D. Deve Gowda, forced even worse, winning just eight seats. Independent candidates won 19 seats.

The results have demonstrated the rejection of the BJP and its divisive ideology which is sought to downplay in these elections. The BJP campaign was built around the Kargil and Vajpayee symbols for the Lok Sabha elections and local issues for the Assembly elections. The losses the party suffered even in constituencies that were considered safe, for Shimoga, Dharwad, Bangalore South, Mysore and coastal constituencies, point to an erosion of its base quite independent of that in the case of its ally.

Forty-two Ministers 24 of them of Cabinet rank was sworn in on Oct 17 at Bangalore including the Chief Minister S.M. Krishna.

A feature of the new Congress (I) Ministry is the appointment of Nine Ministers with independent charge, possibly to save them from the embarrassment of serving under their seniors. Among the Ministers there are six from the Legislative Council, including two with Cabinet rank (Mr. H.K. Patil and Mr. Hindasgari).

### SC Dismisses Review Pleas in Rajiv Case

The Supreme Court on Oct 8, dismissed two sets of related review petitions—one, from the four condemned prisoners and other, from the Central Bureau of Investigation (CBI)—against the court's May 11 judgement in the "Rajiv Gandhi Assassination Case".

The Bench comprising, Mr. Justice K.T. Thomas, Mr. Justice D.P. Wadhwa and Mr. Justice Syed Shah Mohammed Udril delivered three separate judgements.

The Bench in its May 11 judgement confirmed the "death sentence on four of the 26 accused in this case (present 'review' petitioners), namely, Santhan (A-2), Nalini (A-1), Mungan (A-3) and G. Perariavalan alias Arivu (A-18), reduced to life imprisonment the sentence on three others, namely, Robert Payas (A-9), Jayakumar (A-10) and Ravichandran (A-16) and acquitted the remaining 19 accused."

In the case of Nalini (A-1), confirmation of award of death

sentence was by the majority of two to one, Mr. Justice Thomas taking the view that the sentence of death in her case be altered to imprisonment for life. The Trial Court at Chennai sentenced all the 26 accused to death.

The review petitions from the four condemned prisoners was only on the question of award of death sentence on each of them.

In his today separate orders, Mr. Justice Thomas dissented in regard to the sentence aspect concerning Nalini.

The CBI's review petitions—which were also dismissed by the Bench—were directed against that part of the court's May 11 judgement which held that the offence was not committed by the accused concerned with intent to strike terror in the people or any section of people and on that account no offence under section 3(3) of the Terrorist and Disruptive Activities (Prevention) Act-TADA—had been made out. In this respect, the Apex Court's May 11 judgement set aside the conviction and sentence assessed by the Trial Court under the relevant provisions of "TADA".

Mr. Justice Wadhwa delivered the main order dismissing both the sets of review petitions with which Mr. Justice Syed Shah Mohammad Quadri in his separate order completely agreed. However, Mr. Justice Thomas in his separate order dissented in regard to the sentence aspect of Nalini (A-1).

The plea of the four condemned prisoners (poisoners) in the review petitions was that they were no different from Robert Payas (A-9), Jayakumar (A-10) and Ravichandran (A-16) who were also found guilty, but the award of sentence of death to them had been altered to imprisonment for life.

### Armed Forces Appellate Tribunal Mooted

The 15 Law Commission of India, headed Mr. Justice B.P. Jevan Ready, has recommended creation of an Armed Forces Appellate Tribunal to entertain appeals against a sentence or finding or order of the court martial under the Army Act, the Navy Act and the Air Force Act. The appeal can be preferred against the final orders of the court martial.

The recommendations of the Commission in its 199th report follows the observations of the Supreme Court underlying a glaring deficiency in the laws governing the Armed Forces caused by absence of the remedy of appeal against the orders of court martial and the desirability of recording reasons by court martial in support of their conclusions and orders. The objective underlying the report is that while maintaining the discipline in the Armed Forces the dignity of the individual must be respected. It is necessary to ensure that the Armed Forces are not deprived of the services of the bright and courageous young men and women on account of inadequate machinery for getting justice in the Armed Forces, or fear of being punished for no wrong done by them, or for imposition of disproportionate punishment for an offence.

Effective justice system needs to be evolved to safeguard interests of officers in the military with due regard to higher standards of conduct and discipline in the Armed Forces. Justice and discipline should go together.

The appellate tribunal will consist of a retired Judge of the Supreme Court or retired Chief Justice of a High Court who shall preside over the tribunal as president, a retired officer of the Army of the rank of Major General or above or retired officer of the Air Force of the rank of Air Vice-Marshal or a retired officer of the Navy of the rank of Real Admiral and retired Advocate-General of the Army/Air Force navy. The term of the President and members shall be four years.

### New Coalition Sworn in Meghalaya

A new four-party Coalition Ministry, comprising the United Democratic Party, the BJP, the Nationalist Congress Party and the Peoples Democratic Movement headed by Mr. B.B. Lyngdoh of the UDP, was sworn in Meghalaya on October 14. The Governor, Mr. M.M. Jacob administered the oath of office and secrecy to 12 new Ministers of whom eight are of Cabinet rank and four Ministers of State.

Of the new Ministers, eleven are drawn from the NCP, two are independents, who are associate members of the NCP, two are from the BJP and one is from the PDM. Eighteen other Ministers, all from the UDP make it a 30-member Cabinet. In the 60-member House, the UDP has 20 MLAs, the NCP 9, the Congress 16, the BJP the PDM and the Hill state Peoples Democratic Party three each, the Garo National Council one and independents five. The new Ministers with Cabinet rank are Mr. J.H. Rangad (BJP), Mr. Lotsing A. Sangama (NCP), Mr. Monindra Dava (NCP) Mr. Adolt Lu Hitler Marak NCP, Admiral K. Sangama NCP, Mr. E.D. Marak (NCP), Mr. K.M. Khonglam and Mr. Kulart C. Momin (both independents and associate members of the NCP). The Ministers of State are Mr. A.L. Hek (BJP), Mr. Brening K. Sangama (NCP), and Mr. Cyprian Sangama (PDM).

### **SC Upholds Conviction In Corruption case**

In a significant judgement, the Supreme Court has ruled that failure of a public servant to raise the issue of valid sanction during trial of a corruption case would not make his conviction bad in law.

A division bench comprising Justice, Mr. K.T. Thomas and Justice Mr. M. B. Shah in a recent judgement said "where the accused failed to raise the question of valid sanction; the trial would normally proceed to its logical end by making judicial scrutiny of the entire materials".

While quashing an order of the Punjab and Haryana High Court, the Apex Court said that the High Court committed an error in setting aside the conviction and sentence passed on the accused on the ground of want of a valid sanction to prosecute".

The High Court had quashed a lower court order in which a Government official, nabbed by the CBI while receiving a bribe of Rs. 200 from a pensioner for disbursing his arrears in December, 1984, was sentenced to two years imprisonment in August 1990.

The accused V.K. Sehgal, who

was a Section Officer in the office of the Defence Pension Disbursement Section, had moved the High Court on the ground that the Controller General, was the appropriate authority to give the sanction order while it was obtained from the Controller-General of Defence Accounts.

The Apex Court, which allowed two appeals filed by the CBI and the Haryana Government in this regard, said that if the case ended in conviction, there was no question of failure of justice on the ground that no valid sanction was accorded for prosecuting the public servant.

"The court of appeal or revision is debarred from reversing a finding on account of any error or irregularity in the sanction for the prosecution, unless failure of justice had been occasioned on account of such error or irregularity, It said."

The court said, "Once the judicial filtering process is over on completion of the trial, the purpose of providing for the initial sanction would bog down to surplusage".

"The need for valid sanction for prosecution was incorporated in the Prevention of Corruption Act in 1988 and the accused in this case was booked in December, 1984," it said.

### **SC Fixes Time Limit for Criminal Trials**

In a major judgement aimed at speedy disposal of criminal cases, the Supreme Court has made it mandatory for trial courts to close prosecution evidence within three years of framing charges against the accused.

"Speed up the trial of criminal cases to prevent the prosecution from becoming persecution of the persons arraigned in a criminal trial, a bench headed by Justice K T Thomas by a 2-1 majority said.

"No trial can be allowed to prolong indefinitely due to the lethargy of the prosecuting agency or the site machinery," said Justice Thomas and Justice M Srinivasan.

However, Justice M B Shah's dissenting verdict said, "It will not be just and fair for the society or victims

affected by the crime if such a time frame is fixed".

The judgement came on the CBI's applications seeking clarification on a discharge application filed by Chandraswami and his aide K N Aggarwal alias Mamaji in the Lakhubhai Rathak Cheating Case. The two have said the prosecution evidence should be closed as it had exceeded the time limit.

The Supreme Court in the Rajdeo Sharma Case in 1998 had fixed two timeframes for closing of prosecution evidence in criminal cases a three-year time limit in cases pertaining to offences punishable with more than seven years' imprisonment and two years for offences punishable with a maximum of seven years imprisonment.

However, Justice Thomas noted that these timeframes were not absolute and two exceptions had been enumerated.

First the trial courts were not obliged to close the prosecution evidence if the inability for completion of such evidence was attributable to the conduct of the accused. The Court had also said the period of stay on trials granted by higher courts were to be discounted from the time limit as well as the absence of the presiding officers and the consequent delays in trial.

Referring to the constitutional provisions on speedy trial the court said, "We cannot permit the trial court to flout the mandate of Parliament unless the Court has very cogent and strong reasons".

Regarding delays resulting from change of public prosecutors the court clarified that if the tenure of office of a particular person as public prosecutor expires, he shall continue to hold office and functions and public prosecutor until his successor takes charge from him. The Court also said that if the office of a public prosecutor falls vacant on account of any other reason a period of three months shall be excluded from the periods fixed.

# INTERNATIONAL SCENARIO

## New President in Indonesia

Mr. Abdurrahman Wahid, Islamist scholar with gilt-edged secular credentials, was sworn in as Indonesia's new President on October 20, after he defeated the popular leader of the masses, Ms. Megawati Sukarnoputri in a transparent election heralding the resurgence of democracy. Mr. Wahid called upon Muslim-majority Indonesia, which has a secular tradition, to zero in on the twin objectives of maintaining national unity and territorial integrity. Mr. Wahid, who suffers from a stroke induced vision-impaired, as also some frail health, was clearly and quickly in command, though.

Mr. Wahid's election by the Peoples Consultative Assembly had stunned Ms. Megawati's supporters and provoked a violent reaction. The form of the protest was not a new wake-up call for democracy but an obvious disappointment over the defeat of Ms. Megawati.

Ms. Megawati-Charismatic daughter of Indonesian founding father, Mr. Sukarno, and an emerging cult-figure in the country new politics of democratic renaissance was elected the new Vice-President on October 21, 1999. She is now only a proverbial heartbeat away from Indonesia's executive presidency. Even as her supporters celebrated her victory, a bitter-sweet one though in view of her failure to become the Head of State, the police and other

security officials, including Army personnel, heaved a sigh of relief that the tension on the streets would now begin to ebb somewhat.

Ms. Sukarnoputri's emergence as the Vice-President to Mr. Wahid is seen in Indonesian political quarters as an eventual triumph for the overall reform ticket. At another level, with Mr. Wahid in frail health and requiring active assistance in view of his impaired eyesight, Mr. Megawati may get an opportunity to play a dynamic role behind the scenes as also on the prime stage itself.

## Army Takes Over in Pakistan

The democratically elected Government of Mr. Nawaz Sharif in Pakistan was dismissed on October 12, by the Army top brass. The incidence took place after the Prime Minister "sacked" the Army Chief, General Pervez Musharraf, and appointed Lt. Gen. Khwaja Ziauddin, the erstwhile ISI chief the new Army Chief. Mr. Pervez Musharraf is now the new Army ruler of the country.

It is known that the relationship between the civilian PM and the Army chief had gone cover in the last few months behind which Mr. Kargil decade of Pakistan had been one of the major causes. The United States of America had expressed its concern over the internal crisis in the State recently when the Army Chief had reacted that there wasn't any plan to overthrow the democratic government in Pakistan. It means that Mr. Nawaz

Sharif had already started to feel the heat at the seat of the P.M. Several opposition parties had been demanding for the ouster of the Nawaz Sharif Government for the last many months. The Government had been dealing with the protesters with suppressing mechanism. Just when the public opinion was running high against the Nawaz Sharif Government, Army thought it to be a conducive environment to overthrow the Government.

All the ministers including Mr. Sharif were put under house arrest. Though other ministers were released, Mr. Sharif is put under Army arrest and facing charges of corruption as well as an assassination charge of Mr. Musharraf. The Pakistani Constitution and the Parliament had been kept in abeyance and judiciary had been withdrawn of the powers of delivering any judgement against the Army rule. Though it is emergency in the country, Mr. Musharraf has not called it a martial law. He has said that the overthrow was the last resort to get rid of the corrupt and automatic rule of Mr. Sharif. Meanwhile western powers have started putting diplomatic pressure on the Army rule for an early and possible return to the democratic Government.

History looks repeating in Pakistan. As per a survey almost 75% of Pakistani people favoured the Army rule than that of Mr. Sharif's Democratic rule. Mr. Musharraf has asked the President to continue at his post to which he has agreed. By the time Mr. Musharraf is busy forming an advisory body of technocrats and experts so that the country could be governed with a constructive result.

This Army rule of Pakistan is very different from such rules in the past as the country is already under American sanction. Now Pakistan has been withdrawn all economic supports coming from the IMF, the ADB and other institutions. India has taken automatic lead over Pakistan, diplomatically.

## US Senate Rejects CTBT

In overwhelmingly rejecting the Comprehensive Test Ban Treaty (CTBT), the US Senate on October 14 handed the President Mr. Bill Clinton, his biggest and most humiliating foreign policy defeat. The treaty was rejected by a 51 to 48 margin and the final tally was along expected lines. Later, an obviously disappointed Mr. Clinton vowed not to give up the CTBT, while the Vice-President Mr. Albert Gore Jr. said the first thing he would do if elected President was to re-submit the treaty to the Senate for ratification. There is a feeling that the Democrats should not at all have pressed for the ratification of the CTBT knowing they were hopelessly out numbered. At no time were they anywhere near getting the 67 votes required to pass the CTBT.

This is the first time in about 80 years that the Senate has rejected a major international treaty, the last being the treaty of Versailles in 1920. Eight decades ago there was supposed to have been an extended and lively debate, this time round the events were marked by high partisan rhetoric and a few hours of actual debate. Mr. Clinton denounced the Senate rejection as a reckless, partisan act, and 'political deal' he, however, pointed out that, "when all is said and done, the United States will ratify the treaty". The President said the US will continue the policy of not conducting nuclear tests and called on Russia, China, Britain and France and other countries to continue to refrain from nuclear testing. Mr. Clinton warned India and Pakistan against interpreting the rejection of the CTBT by the Senate as a sign that Washington did not care whether they ratified the landmark pact or not.

Meanwhile, India has felt a reprieve from the necessity of passing the Treaty. Though the new Parliament might go on to debate on the issue it is yet to be seen, how and when the

new Government goes for the ratification.

## Nyerere Is Dead

Dr. Julius Nyerere, African Statesman who led Tanzania to independence, died in a London hospital on October 14 after a protracted illness. Dr. Nyerere (77), known as Mwalimu, or teacher, had been diagnosed with leukemia last year and was being treated. He suffered a stroke over the weekend.

Often described as the conscience of Africa, Dr. Nyerere was President of Tanzania since its independence in 1961 till 1985. He was also a major source of inspiration to the leaders in the developing world, and was one of the pillars of the Non-aligned Movement (NAM). Because of his determination to build a more just world economic order, the issue had been placed on the global agenda in the 1970s.

Dr. Nyerere was committed to socialism and self-reliance, and he tried to realize these goals through "Ujama" or village-based collectives. The system did not work, and the Tanzanian economy failed disastrously. But his emphasis on free education and health for all produced some of the best educated people in Africa.

He played a divisive role in shaping the events in Southern Africa. He spearheaded the so-called frontline States in their moves to bring about majority rule in Zimbabwe, then Rhodesia, and was also a key figure in devising the peace plan that led to its independence. He also played an important role in building international opinion against the apartheid in South Africa. He also hastened the downfall of Idi Amin's regime in Uganda by sending troops to replace the regime.

In an unusual move in Africa, Dr. Nyerere stepped down as President after 23 years in office and oversaw a smooth transition of power. In his retirement, he remained active in

speaking on global issues such as poverty and debt. He also worked hard to try and end the violence in Central Africa.

## Indo-German Ties

Germany and the European Union have backed India's call for global efforts to urgently tackle the menace of international terrorism. Various dimensions of terrorism and measures to combat figured during the wide-ranging talks the External Affairs Minister Mr. Jaswant Singh, had with the German Vice-Chancellor and Foreign Minister, Mr. Joschka Fischer and the External Relations Commissioner in the European Commission Mr. Chris Patten on October 1, 1999.

While endorsing India's proposal for global efforts to fight terrorism, Mr. Fischer during the two-hour dinner meeting with Mr. Singh, said the international community should work together to isolate 'terrorism'. The talks covered a host of national, regional and international issues of neutral concern. Same thing was repeated by the EU's Mr. Chris Patten.

Germany and the EU both did show their concern about the relation between India and Pakistan and called that the neighbours would have to live with each other. The EU stressed to further strengthen its ties with India and called it a priority issue. Mr. Patten said that the process of economic liberalisation undertaken by India has made it an attractive destination for foreign investment.

Afghanistan, the South Asian situation and nuclear disarmament also figured during the talks. India put its stand on the CTBT and committed not to come in the way of the treaty. Mr. Singh told Mr. Fischer that India was working for a national consensus on the treaty.

## China Is at Fifty

A grand visual feast and some significant substantive messages—this was the celebration of the 50th

## INTERNATIONAL SCENARIO

birthday of the Peoples Republic of China on October 1, 1999.

There were only two portraits at the venue of the ceremony-Tiananmen Square one of the founders of the Chinese Republic in 1912, Sun Zhongshan and the other of the architect of the People's Republic, Mao Zedong. The portrait of Deng Xiaoping responsible for the bold economic initiatives was conspicuous by its absence-because of his own wish that he be treated as an ordinary person. However, the tableaux, showing the different phases of social and political life, had besides Mao Zedong, Deng and the present President.

In his address, Mr. Jiang Zemin dealt with domestic and foreign policy matters; often raising his voice to a high pitch to emphasize a point smoking loud applause. For instance loud cheers greeted his remark. "Practice has fully proved that socialism is the only way to save and develop China. It has also proved that building socialism with 'Chinese' characteristics is a broad road to economic prosperity and all-round social progress in China. Promising continuance of the policy of "peaceful reunification of one country and two systems" he sounded a confident note. "We will ultimately accomplish the national reunification of Taiwan with the mainland, following the successful return of Hong Kong and Macao." The complete reunification of the motherland and the maintenance of its security are the very foundation of the great rejuvenation of the Chinese nation, he added.

Mr. Zemin committed China to the continued pursuance of the "independent foreign policy of peace and friendly relation with other countries on the basis of the five principles of peaceful co-existence. He was again loudly cheered when he expressed China's resolve to "Oppose hegemonism, promote global multipolarity, push for the establishment of a just and equitable new international political and economic order." He concluded with a call for holding high the great

banner of "Marxism, Leninism, Mao Zedong's thought and Deng Xiaoping's theory."

### Iran-Iraq Ties

Iran on October 1, announced that it had freed the Iraqi PoWs to mark the 100th anniversary of the birth of Iran's revolutionary leader Ayatollah Ruhollah Khomeini. Relatives hugged their memories and wept when 276 Iraqi prisoners of war (PoWs) arrived home from Iran nearly 11 years after the end of the 1980-88 war between the two gulf neighbours.

The PoWs were handed over to Iraqi authorities under the supervision of the Red Cross. The fate of thousands of PoWs is among the thorniest issues hindering Iraq-Iran ties. Iraq says that Iran still holds 13,000 of its soldiers, some of whom have languished in Iranian camps for more than 15 years. Iran gives conflicting figures for its own PoWs but speaks of several thousands being held in Iraq. Iraq says it holds more. Teheran says that thousands of Iraqi prisoners have sought asylum in Iran through the Red cross.

### C' Wealth Suspends Pakistan

The Commonwealth banned Pakistani's military Government from attending the groupings Summit in Durban. The eight Foreign Ministers who make up the Commonwealth's ministerial action group met in London on October 18 and unanimously condemned "The unconstitutional overthrow of the democratically elected Government of Pakistan. They called on the military region to "set without delay a time-frame for the restoration of a democratically elected Government". The group also divided to suspend the military Government from the "Councils of the Commonwealth". This in effect mean that it cannot attend the heads of Government summit in Durban any other inter-governmental Commonwealth meetings.

Under Commonwealth rules, military regions that assume power

through coups are automatically suspended from attending its high-level meetings. Pakistan has not, however, been suspended or expelled from Commonwealth membership. The meeting also divided to suspend any new Commonwealth? Technical assistance to the military region, barring assistance aimed at restoration of democratic rule. Contact between the Commonwealth's Secretariat and the military regime would also be suspended.

The Commonwealth ministerial action group did not ask for the restoration of Mr. Nawaz Sharif's Government through it did call on the military Government to "uphold the safety, well-being and legal rights of the PM and other Ministers and all others who have been detained. The Commonwealth is the first international organisation to announce action against the military Government through scope of what it can do is limited. The bilateral Action Plan drawn up by Commonwealth Heads of Government (CHOGM) as a response to the military coup in Nigeria in 1995, provides up to two years for the restoration of a domestic Government. It also allows two years before sanction are imposed.

Meanwhile, Pakistan regretted its suspension from the organisation and said that the decision has been taken ignoring the "extraordinary circumstances" which led to the Army take over.

### Jiang Visits Britain

History was made on October 12, when the first ever Chinese President Mr. Jiang Zemin reached London on a four-day State visit to Britain. He was welcomed by Queen Elizabeth with official ceremonies. Tight security measures were in place to keep demonstrators against human rights violations in China or China's occupation of Tibet in check, though demonstrators committed themselves to continue with their protests. It is known that Mr. Jiang never takes such demonstration in good spirit while he is on a foreign tour.

#### INTERNATIONAL SCENARIO

Several bilateral and international issues were discussed by both the countries. The issue related to human right violations and Tibet were also discussed. On the last day of his visit, the British Prime Minister Mr. Tony Blair, urged the Chinese leader to open a dialogue with the Dalai Lama. Mr. Blair further added that Britain does not recognize Chinese sovereignty over Tibet and wishes to see the remote Himalayan region to have control over its internal affairs. To this Mr. Jiang put forward the policies of his country-no go back. Meanwhile, Prince Charles did not attend the banquet hosted by Mr. Jiang in honour of this Queen. It has been seen as a notable break with protocol about which it was said that it was motivated by Prince Charles admiration for the Dalai Lama whom the Prince has met twice.

Mr. Jiang has been bogged down by protestors of human rights during his visit and he had to sneak into No. 10 Downing Street for his meeting with Mr. Blair through a side entrance to dodge protestors. Mr. Blair put forward the recent suppression of the Falun Group to which Mr. Jiang said it as a disruptive group. As per Mr. Jiang the Falun is a sect trying to promote instability, and therefore "outside Chinese law."

Both the above given issues were said to be less brought down in their intensities of the differences between the countries. They committed to go on for a greater bilateralities in other areas of cooperation. Chinese attempts to join the WTO, which Britain supports was also discussed. It is known that Britain is the largest European investor in China, and exports roughly £1 billion worth of goods every year to that country. These interests basically remained the moot points of discussion between the countries.

#### Quake Hits Taiwan

The city of Chiayi in Central Taiwan bore the brunt of the earthquake which jolted Taiwan on October 22. Several buildings had collapsed and

power supply was cut off in the area. The official Central Weather Bureau said the tremor, which measured 6.4 on the Richter Scale struck six kilometers north west of Chiayi-city at a depth of 12 km.

Seismologists said that this quake was independent of the huge 7.6-magnitude tremor that hit mountain of Nantou country on September 21, 1999. In China the quakes were felt in the Coastal provinces. Seismologists have meanwhile said that Taiwan has recorded 123,045 aftershocks since the September 21 earthquake, and that aftershocks would continue for two or three months. The September 21 quake killed more than 2,400 people and injured nearly 10,000 in the Central Taiwan.

#### Russia Attacks Grozny

Russia launched phase two of its military campaign in Chechnya on October 22, with a deadly missile attack on the Chechen Capital, Grozny, in which hundreds of people were killed or wounded.

"The first stage of anti-terrorist operation has been completed with the liberation from terrorists of one third of the republic territory. The Government of the Russian federation dealers that its future action will be equally determined and tough, aimed at complete restoration of law and order on the whole territory of Chechnya from terrorist and other bandit formation, the Government said..

The missile attack on Grozny could have been aimed at speeding up an exodus of civilians from the city through the remaining southern corridor ahead of an imminent offensive. An estimated 1,77,000 have already fled Chechnya. The defence History said it had concentrated 90,000 troops in Chechnya, three times more it had in the region in the last war. The Russian Defence Minister on October 20, admitted that Grozny might be stormed if it helps achieve "the larger

goal of eliminating Chechen terrorists."

#### West Asian Situation

On October 15, Israel released 151 Palestinian prisoners in accord with an agreement signed recently. The released prisoners include 12 who were members of militant groups that have carried out terror attacks on Israel and another 38 who were convicted for killing Palestinians in the course of the struggle with Israel. Sticking to the criterion they have emphasized all along, Israel did not release a single Palestinian who had killed Israelis. This is the second batch of prisoners to be released under the terms of the Wye-II accord signed recently. Israel had released 199 prisoners before and are expected to release another batch before the onset of Ramjan in December.

While in release of the prisoners and the opening of a 'safe passage' between the Gaza Strip and the West Bank should have boosted the spirit of co-operation between the Israelis and Palestinians, the prolonged and acrimonious debate over details has dampened much of the enthusiasm. The situation is of course much improved from what it was till May this year when Mr. Ehud Barak became Prime Minister. Now the two sides have again begun to hold negotiation and implement the divisions arrived at and they appear to have restored part of the trust. But the movement is in such a mean fashion that it is not really conducive to a happy mood.

Meanwhile, the Palestinians are deeply disappointed with the extremely cautious manner in which Mr. Barak has been dealing with the question of Jewish settlements on territory claimed by the Palestinians. The Israeli Prime Minister has always insisted that he would not dismantle all the settlements and that he preferred an outcome whereby large blocs of settlements would be incorporated into Israel Proper.





## ECONOMY

**CEAT Sets 14% Growth Target :** CEAT Ltd. expects to notch up a turnover of Rs. 1,400 crore in the current year and increase its profits by 14 per cent over last year. In the first five months of the current financial year, the company has registered sales of Rs. 533 crore - an increase of 19 per cent over the corresponding period of last year.

**Panel to Assist Foreign Investors:** As a follow-up to the announcement made by the Union Finance Minister in the last Union Budget, the Government has set up an inter-ministerial committee to assist projects involving foreign investment after they have been accorded approval.

**SIDBI to Raise Rs. 1,500 Cr :** The Small Industries Development Bank of India [SIDBI] has decided to raise Rs. 1,500 crores from the domestic market for the current year and may top the market with suitable mix of instruments by the end of third quarter of the beginning of fourth quarter of the current financial year.

**India Is 4th In PPP Terms :** India is the fourth largest economic power in purchasing power parity (PPP) terms, despite her unrealised potential and low per capita income,

says the World Bank's latest World Development Report.

**Maruti Gets Nod for Four New Models :** The Project Approval Board under the Industry Ministry has permitted Maruti Udyog Ltd. (MUL) to roll out four new car models code-named YG-4, YG-5, YM-I and YB-I.

With this approval in place, MUL is all set to introduce its line-up of new models to take on the increasing competition in the Indian Passenger Car Market.

**Italian Trade Commission Office in Chennai :** Italy, which has a bilateral trade exceeding \$ 2 billion with India, has opened its first Trade Commission office in South India at Chennai. The office, located at Prince Towers on college road in the city, will help boost trade and investment cooperation especially with South India.

**HUDCO Ties up with USAID to Access Market :** The Housing and Urban Development Corporation of India (HUDCO) has signed an agreement with the US agency for International Development (USAID) to raise \$ 10 million from the Indian Capital market for lending the urban infrastructure projects in Nagpur and Surat.

**Car Sales Rise 46% in April-August :** Total sales of passenger cars in August 1999 witnessed a growth of 70 per cent to 57,924 against 34,016 units sold during the same period last year. The growth in sales was mainly because increase in the sales of small cars such as Hyundai's Santro, Daewoo's Matiz, Telco's Indica and Fiat's Uno.

**Stars Sells Stake in JV to Zee Telefilms :** The Star TV on September 25, announced an agreement with the Zee group to transfer its 50 per cent stake in Asia Today and PATCO which operate Zee TV, Zee Cinema and Zee News and 50 per cent in Siticable, India's largest cable system operator, to the publicity listed Zee Telefilms Ltd. (ZTL) for a consideration of about \$ 296.51 million.

**Tyre Production Set to rise 10 Per cent :** Tyre industry is poised for an accelerated 10 per cent growth during the current financial year in the wake of an economic revival, Automotive Tyre Manufacturers Association (ATMA) has said. During April-July this year, truck and bus tyre sector witnessed 14 per cent increase.

**Cabinet Okays Hike in FCI Capital :** The Union Cabinet has decided to increase the capital base of the Food Corporation of India. The FCI had earlier taken a Rs. 900 crore loan on lenient terms from the Union treasury, instead of having to repay it, the amount will be formally converted into equity of the Union in the FCI.

**Diamond Exports Regain their Glitter :** The Indian diamond industry, with revival in demand from the beginning of last year has posted a strong performance to the full year. In 1998-99, gem and jewellery exports totalled \$ 6.205 billion up from \$ 5.755 billion in the previous year. Not only that according to figures released by the Gem & Jewellery Export Promotion Council (GJEPC), during the five month period this year, total diamond exports rose by 30 per cent to \$ 2,325 million, in compared to the corresponding period of the previous year.

**FIPB Clears 46 Proposals :** The Government on September 27, cleared 46 foreign investment proposals worth Rs. 204 crores including that of fast food giants Dominos Pizza and engineering multinational ABB. ABB Holdings (South Asia) were given the permission to acquire 49 per cent stake in German subsidiary eg. Elsag Bailey Ltd. at an investment of Rs. 100 crores by the Foreign Investment Promotion Board (FIPB).

**11 P.C. Drop in FDI Flows into Asia-Pacific :** Foreign direct investment flows to India fell by \$ 1 billion in 1998, even as the total volume of flows into the Asia-Pacific region also dropped by 11 per cent in the backdrop of the Asian Financial Crisis. Bangladesh in contrast experienced fast growth in terms of

## MICRO NEWS

**FDI inflows especially in the energy sector.**

**India, US to Tie-up for Showbiz :** Entertainment companies in India and the US have decided to come together to identify opportunities for investment and business tie-ups. They have formed a committee that will function as part of the Indo-US joint business council. Indian participants in the initiative are Lalit Modi and K.K. Modi - promoted Modi Entertainment Network.

**FDI to India Fell by \$ 1 billion :** Foreign direct investment to India fell sharply by \$ 1 billion to \$ 2.3 billion in 1998 notwithstanding Government's commitment to step up the flow of \$ 10 billion annually.

**Committee to Study Mining Tax Structure :** The Government has set up a committee to change the tax structure in the mining industry, as part of its efforts to rapidly develop the much-neglected sector. "A multi-disciplinary committee is currently examining the tax regime in the mineral sector to suggest appropriate tax structure for rapid development of the sector," Mines Secretary Arbind Verma said.

**Govt. Guidelines for Ship Imports:** The Government has issued fresh guidelines for importing new and secondary ships under open general licence (OGL) and restricted list. As per the guidelines, technical clearance and price reasonableness certificate will not be required for importing new vessels under OGL.

**Reliance Petro In Pact with HPCL, BPCL :** Reliance Petroleum [RPL] has concluded marketing agreements to sell its entire output of controlled products from its 27 million-tonne Jamnagar refinery to the three government-controlled marketing companies. RPL has signed the agreements with Hindustan Petroleum Corporation Ltd. [HPCL] and Bharat Petroleum Corporation Ltd. [BPCL] for sale of motor spirit, diesel, kerosene; aviation turbine fuel and LPG from its refinery in Gujarat.

**Monsanto India Gets Award :** The

**Organisational Development (OD) Institute of the U.S. has given the 1999 OD Award to Monsanto India for transforming a company of ten employees, formed in 1996, into a 400 employees with a marketing mindset focussed on knowledge change and performance.**

**Airbus Sees 3.9 per cent Growth in India :** Despite infrastructure constraints and procedures involving aircraft acquisition in India, air craft manufacturer Air bus Industries sees the number of planes in the country increasing by 3.9 per cent from 105 air craft [until 1998] to 224 at the end of 2018.

**Record Turnover of Rs. 6795 Cr. by BHEL :** Bharat Heavy Electricals Ltd. [BHEL] has notched a record turnover of Rs. 6795 crore during 1998-99, up by 5 per cent over the previous. The company sustained a profit after tax of Rs. 545 crore and declared a dividend of 25 per cent for the year 1998-99.

**Gas Prices Revised :** Gas prices have been upwardly revised in a two-tier arrangement by the Gas Authority of India Limited [GAIL] with effect from October 1 and will remain effective till December 31, 1999. A GAIL release said that except for the North-Eastern States, the consumer price of natural gas throughout the country will be Rs. 2850 per thousand square cubic metre [SCM], an increase of Rs. 351 from the existing price.

**Exports up 10.2 p.c. in August :** Exports in August have jumped to double-digit levels with a 10.2 per cent spurt in growth. Imports have also risen sharply by 19.3 per cent during the month largely reflecting the high cost of oil imports. As a result, the trade gap has widened to \$ 3.9 billion, slightly more than it was last year at the same time.

**Rise in Value of Mineral Production :** The total value of mineral production excluding atomic and minor minerals during July in the current year has increased to Rs. 3,075 crores from Rs. 3,001 crores in June this year.

**Panel prescriptions for Market Making :** The Securities and Exchange Board of India appointed committee on market-making has recommended that all scripts except those with traders less than 50 in number, less than Rs. 10 lakhs in value and those included in the Sensex and Nifty scripts, would be eligible for market making.

**SAIL Records 7 p.c. Growth :** Steel Authority of India Ltd. [SAIL] has recorded a seven per cent growth in domestic sales at 3.85 million tonnes during April-September 1999-2000 over the corresponding period last year. Total sales in domestic and overseas markets stood at 4.25 million tonnes a growth of 12 per cent.

**Indica Sales Cross 21,000 Units :** Telco's Indica has garnered a 6.86 per cent market share of the total passenger car market during the period April to August 1999. The Tata Group Company registered sale of 5,044 Indicas in September taking the cumulative sales to 21,285 units in the first six months of the current year.

**Diesel Prices Raised :** The Government on October 5, announced an unprecedented 40 per cent hike in diesel prices, even as the country was waiting with bated breath for the poll results to pour in.

**RBI Norms for Gold Deposit Scheme :** The Reserve Bank of India announced detailed guidelines for the Gold Deposit Scheme. Each bank will within the frame-work set out by the RBI guidelines, devise a scheme in accordance with its own assessment of the market.

**Panel Suggests Rs. 5,500 cr. Package for Weak Banks :** The Reserve Bank of India [RBI] constituted Verma Panel Report on restructuring of weak Public Sector banks has recommended a Rs. 5,500 crore bail out package for weak banks.

**Tax Collections Buoyant :** Contrary to fears, revenue collections were buoyant in the first half of this financial year recording a 13.4 per

core growth with monthly figures for September showing a substantial 18.3 per cent growth.

**Sensex Pierces 5000 - Mark :** The 30-Scrip Index of the Bombay Stock Exchange [BSE] created a record on Oct. 8, surpassing the historic mark of 5000 points' level.

**SEBI Tightens IPO Norms for IT Companies :** The Securities and Exchange Board of India [SEBI] has made it mandatory for Information technology [IT] companies proposing to tap the primary market to furnish a three year track record of profitability out of their IT activities.

**Decline in German Investments :** India, facing tough competition from other Asian countries, was able to attract only three per cent of actual investments from Germany in the first half of 1999, a sharp decline from the previous years.

**CMIE Scales Down GDP Growth :** Real gross domestic product [GDP] in 1999-2000 is likely to grow at a lower 5.1 per cent against 5.9 per cent expected earlier, according to the Centre for Monitoring Indian Economy (CMIE) in its October review. The downward revision is due to the decline of one per cent in value addition from agriculture, fishing and forestry.

**SBI Gold Sales Touch Rs. 360 cr.:** Gold sales seem to have become a highly rewarding business proposition for State Bank of India. In the last six months, the bank has notched up a sale of the yellow metal worth Rs. 360 crores.

**Industrial Growth Spurts to 6% :** Powered by a buoyant manufacturing sector, industrial growth spurted to 6 per cent in April-August 1999-2000 compared to 4.2 per cent in the same period last year. In August this year, industry recorded a 6.3 per cent growth against 4.4 per cent growth posted in the same period last year.

## DEFENCE

**Russia to Construct Second Frigate for India :** Russia is launching

the construction of the second of three multi-role battleships ordered by India in 1997 at a total cost of \$ 1 billion.

The project - 11356 frigate is an-upgraded version of the 4,000-ton Krivak — class warship, said to be superior to any foreign — built battleships in its class. It will carry advanced guided missiles to neutralise surface, aerial and subsurface targets. It will also be armed with artillery guns, torpedo launchers and anti-submarine depth charges and will accommodate an onboard reconnaissance helicopter.

**Nishant Test-Flown :** The indigenously built unmanned aircraft, Nishant, was successfully test-flown on September 29, from the Interim test range [ITR] at Chandipur-on-sea, about 15 km. from Balasore. Developed by the Defence Research and Development Organisation laboratories, Nishant was designed to undertake discrete aerial reconnaissance of battle fields, including target acquisition.

**Akash Test-fired :** India on September 30, successfully test fired its multi-target surface-to-air missile 'Akash' having a range of 25 km. from the Interim Test Range ITR at Chandipur.

Akash hit Nishant, a pilotless training aircraft [PIA] flown earlier from ITR, with desired accuracy. The test was exclusively meant to measure the timing and range of Akash, compared to patriot missiles, and also its ability to hit a moving object in different range.

## BOOKS & AUTHORS

**Development As Freedom :** It is often remarked that democracies do not fight wars against each other. Less noted in this arresting observation offered by economist and author of this book Amartya Sen; "No famine has ever taken place in the history of the world in a functioning democracy—be it economically rich (as in contemporary Western Europe or North America) or relatively poor as

in post independence India or Botswana or Zimbabwe". Never in the history of the world! That statement is not the only remarkable one in *Development As Freedom*. Sen's thoughtful, expansive, sober, but not easily accessible reflection on the relationship between economic well-being and political freedom.

Sen's work on the causes of famines and on the measurement of poverty gained him the Nobel Prize in Economic Science in 1998.

Some of the earlier feelings are repeated in this volume, but the overall argument — that freedom is the principal goal and purpose of development — gets full elaboration here.

In his new book, Sen attempts to shift the focus of an old debate. The modern discussion about how economies grow and how people can benefit from that growth goes back at least as far as the 18th century, to Adam Smith's *Wealth of Nations*.

**Mandela : The Authorised Biography :** A facet of Nelson Mandela, the politician that is often obscured by the Mandela the myth is that he is, in author's Anthony Sampson's phrase, a master of imagery. This is a quality all the more remarkable in that he is most certainly not a master of oratory. But in all other aspects Mandela's carefully honed charm and talent for political theatre are every bit as sophisticated, Sampson suggests, as that of the Great Communicator himself, Ronald Reagan.

The author, who has now written three books about South Africa, came to know Mandela during 1950s. An English man who moved easily in black Johannesburg Society, Sampson was the editor of *Drum*, a Johannesburg magazine aimed at the black African market.

Mandela was to remain the "dramatic personification of his people", as Sampson puts it. Before prison he personified defiance. After it he personified reconciliation.

**Once Was Bombay** : Priti Virani's intensely personal account of the collapse of a city rests on the notion of a paradise lost, the giving way of cosmopolitan, secular and modern Bombay to a criminalised sprawl of urban waste, Mumbai. Its cost is diverse, the ageing Mazagon glass merchant Babliseth, unable to come to terms with transfigured Mumbai of the 1990s, the angry mafioso Pakeya, Chhagan Bhujbal, the Shiv Sena apparatchik - turned secular politician; the rich and famous of the film industry.

Yet, there is a hole in the middle of the story, one that says not a little about why the city's curious form of upper class liberalism collapsed in the face of Hindu fundamentalist assault.

## PLACES IN NEWS

**Taiwan** : A devastating earthquake, possibly the strongest in its history, struck Taiwan early on September 21. It killed around 1,700 people and toppled buildings including a 12-storey hotel in down town Taipei.

**Singapore** : 31st ASEAN Economics Ministers meeting was recently held here.

**New Delhi** : Defexpo India'99 — the first exhibition of land and naval system mounted on the country's soil — was recently organised at New Delhi.

## AWARDS

**Jamnalal Bajaj Award** : Prof. Sir Joseph Rotblat, a noted British nuclear physicist has won this year's prestigious Jamnalal Bajaj International Award for promoting Gandhian value outside India.

The award for outstanding contribution in the field of constructive work goes to Mr. Narayan Desai Sampurna Kranti Vidyalay, Surat, the award for application of science and technology for rural development goes to Dr. Ajay Kumar Basu of society for Rural Industrialisation, Ranchi. The Janakidevi Bajaj Award for uplift and welfare of women and

children goes to Ms. Sarawati Gore of Atheist Centre, Vijaywada.

**Karnataka Ratna Award** : The State Government has conferred the prestigious 'Karnataka Ratna' Award on former Chief Minister and Senior Statesman, Mr. S.Nijalingappa. Mr. Nijalingappa is the third recipient of Award.

**Shahu Ashok Jain Smriti Award** : Padmashree Babulal Jain Pataudi has been honoured with the first Shahu Ashok Jain Smriti Award. The award, instituted by the Baraut Jain Samaj carries a purse of Rs. one lakh, a shawl and a citation.

**B.M. Birla Award** : Six scientists are the recipients of the B.M. Birla Award for science for the year 1997.

The scientists are prof. J.N. Venkataraman of the Tata Institute of Fundamental Research (TIFR), Mumbai [Mathematics], Dr. Mohit Randeria Associate Professor, TIFR Mumbai and Dr. Madan Rao, Fellow in the Institute of Mathematical Sciences, Chennai [both-physics], Dr. Pratim Kumar Chhatraj, Professor Indian Institute of Technology, Kharagpur, and Dr. Shantanu Bhattacharya, Associate Professor, Indian Institute of Science, Bangalore [both Chemistry] and Dr. Anil Grover, Reader, Delhi University [Biology].

**World Food Prize** : Dr. Walter Plowright of the United Kingdom has been awarded the prestigious \$250,000 World Food Prize, 40 years after he developed a vaccine to rid the world of rinderpest, one of the most lethal cattle diseases.

**Right Livelihood Award** : The 1999 Right Livelihood Award, often called an alternative Nobel Prize, has been given to a Spaniard, a German and organisations from Cuba and Colombia.

Recipients included the Spanish lawyer, Mr. Juan Garces, for his efforts to "end the impurities" of the former Chilean dictator, Mr. Augusto Pinochet, and for his legal work leading to the arrest of Mr. Pinochet in London in 1998.

**Direct Tax Award** : The Union Ministry of Finance has honoured the well-known economist, Prof. Madhu Soden Tripathi with 'Direct Tax Award' for his book 'Income Tax Planning'.

The book, focusing on rationalisation of the income tax system, is an excellent presentation on tax matters.

## NOBEL PRIZES FOR 1999

**Nobel Prize for Literature** : The German novelist Mr. Guenter Grass won the 1999 Nobel Prize for Literature. Mr. Grass came to fame with his novel "The Tin Drum". Mr. Grass, born in 1927 in Danzing of Polish-German parents, has often been mentioned as a possible Nobel laureate, and is one of Germany's best known living writers.

**Novel Medicine Prize** : The German Cell and Molecular biologist, Mr. Guenter Blobel won the 1999 Nobel Prize for Physiology or Medicine.

Mr. Blobel was awarded the prize for his discovery that "proteins" have intrinsic signals that govern their transport and localisation in the cell.

**Nobel Prize for Physics** : Dutch physicist, Dr. Gerardus T Hooft and Dr. Martinus Veltman, won the 1999 Nobel Physics Prize. They were awarded the price "for elucidating the quantum structure of electroweak interactions in physics."

**Novel Prize for Chemistry** : Dr. Ahmed Zewail has been selected for the 1999 Nobel Chemistry Prize.

Dr. Zewail who holds both Egyptian and US citizenship, was awarded the prize for showing that it is possible with rapid laser technique to see how atoms in a molecule move during a chemical reaction.

**Prof. Robert Mundell** : Prof. Robert Mundell, whose research on monetary and fiscal policy under different exchange rate regimes pointed the way to Europe's economic and monetary union, won the 1999 Nobel Prize for Economics.

## MICRO NEWS

**Indira Gandhi Award for National Integration :** The former President, Dr. Shankar Dayal Sharma, has been awarded the 1998 Indira Gandhi Award for National Integration. The award consists of a citation and a cash amount of Rs. 1.51 lakhs.

### MISCELLANEOUS

**Artificial Guinea-pigs for Lab Use :** Scientists have developed environment-friendly artificial guinea-pigs for dissection and other experiments in laboratories to prevent cruelty to animals.

"The animals made from high-quality rubber, "look like real animals in size and shape and are specially designed for anatomical and micro-surgical laboratory experiments in universities, hospitals and clinics," says Dr. Suresh Vir Singh Rana, Professor and Head of the Department of Zoology at the Chaudhary Charan Singh University.

**Indian Governance Rated Better :** Indian Government which has come under much scrutiny in recent times, has been rated as better than other South Asian Nations in a newly-

developed Humane Governance Index (HGI).

The report which was released recently, places the HGI for India at 0.577 and stand better in comparison to those of Pakistan (0.502), Sri Lanka (0.465) and Bangladesh (0.462). India's HGI is also marginally higher than the South Asian average which has been placed at 0.56.

**TOI Top multi-edition Daily :** Circulation of newspapers in India increased by 20 per cent in 1998 over the previous year, despite the marginal fall in the number of publications registered during the year.

According to the registrar of Newspapers in India's report "The Press in India 1998". The Times of India was the top multi-edition daily with a circulation of 13,90,827 copies followed by Malayala Manorama with 11,23,745 copies. The Ananda Bazar Patrika, published from Calcutta, claimed the highest circulation [5,86,637 copies] during 1998 among the single edition dailies, followed by the Times of India from Mumbai (5,66,378 copies).

**Birla Fellowships :** The Hindi writer, Prof. Prem Shankar and the Tamil Scholar, Mr. Ashokamitran have been offered the K.K. Birla foundation fellowships in comparative Indian literature.

**Technology Award for Public Sector Unit :** The Indian Renewable Energy Development Agency (IREDA) a public sector unit has been awarded the world climate technology award by the Paris-based climate technology initiative. The honour has been bestowed on IREDA for its significant role in financing and promoting self-sustaining investments in energy generation from renewable sources and energy efficiency for sustainable development.

**India Offers Rice to Indonesia :** India has offered 500 tonnes of rice to Indonesia which is engaged in seeking a way out of the continuing crisis over East Timor. The humanitarian offer was announced by India's Ambassador to Indonesia, Mr. M. Venkataaraman, at a function in Kupang in West-Timor recently, on the occasion of the visit to that area by a team of Jakarta-based diplomats from several key countries.

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# PERSONS IN NEWS

## **Bharat Kapadia**

Mr. Bharat Kapadia, associate publisher and chief executive of the Chitralakha Group was elected the Chairman of the Advertising Standards Council of India (ASC). Mr. Kapadia has been connected with self-regulation in the advertising movement for the last few years.

## **Hasrat Jaipuri**

Renowned lyricist Hasrat Jaipuri who penned over 3,000 songs in Hindi movies died at Mumbai on Sept. 17. He was 77.

## **Mohan Khokar**

Well-known classical dance scholar and historian Mohan Khokar died of Lymph cancer at Chennai on September 17. He was 74.

## **Raisa Garbachev**

Mr. Raisa Garbachev, who brought glamour and controversy to the Kremlin when her husband ruled the Soviet Union, died of Leukaemia in a German hospital on September 20. She was 67.

## **A.C. Muthiah**

Tamil Nadu's A.C. Muthiah has been elected President of the Board of Control for Cricket in India and legendary all-rounder, Kapil Dev named national coach.

## **Keizo Obuchi**

Riding a wave of popularity and facing no serious opposition, the Prime Minister, Mr. Keizo Obuchi has been re-elected as head of Japan's ruling party-a win that ensures him fresh term as the nation's leader.

## **George Scott**

Irascible and out spoken, Oscar-winning actor George Scott, best known for his lantern-jawed portrayal of General George S. Patton, has died after a long illness in New York. He was 71.

## **Mr. Ali Abdullah Saleh**

The President Mr. Ali Abdullah

Saleh, has swept to victory in Yemen's first direct presidential elections, with 96.3 per cent of the vote.

## **Mr. Krishanpal Singh**

Former Gujarat Governor and senior Congress leader, Mr. Krishanpal Singh died at Bhopal on September 27. He was 78.

## **James Wolfensohn**

The President of the World Bank, Mr. James Wolfensohn, has been unanimously renominated. Mr. Wolfensohn is only the second in the list of nine Presidents of the Bank to be reappointed.

## **Gautam Rakshit**

Gautam Rakshit, managing director, advertising avenues, is the new Chairman of the Audit Bureau of Circulation (ABC). Aroon Puri, publisher and editor-in-chief of India Today, takes over as deputy Chairman.

## **R.S. Krishnan**

Prof. R.S. Krishnan (88), a distinguished scientist, died at Bangalore on October 2. Prof. Krishnan was a Professor and Head of the Department of Physics, Indian Institute of Science, Bangalore, and the Vice-Chancellor of the Kerala University, Trivandrum.

## **K.D. Shorey**

Mr. K.D. Shorey, has been elected President of the Indian Motion Picture Producer's Association (IMPDA) for 1999-2000. Mr. Saawan Kumar Tak, was elected senior Vice-President.

## **Mr. Suraj Bhan**

Uttar Pradesh Governor, Mr. Suraj Bhan has been sworn in Governor of Bihar by the acting Chief Justice of Patna High Court, Mr. B.N. Agrawal.

## **Mr. Kanchan Gupta**

Mr. Kanchan Gupta, a former journalist and current editor of the BJP Today, the BJP's official organ, was appointed officer on special

duty in the Prime Minister's office.

## **Nara Chandrababu Naidu**

Mr. Nara Chandrababu Naidu, 49-year-old President of the Telugu Desam Party, was sworn in a second time Chief Minister by the Governor, Dr. G. Ranrajani.

## **Mr. Mukut Mithi**

A two-tier 37-member Congress I Ministry has been sworn in Arunachal Pradesh under the leadership of Mr. Mukut Mithi.

## **S.M. Krishna**

Congress Legislature Party leader S.M. Krishna has been sworn in as the 18th Chief Minister of Karnataka by Governor Khursheed Alam Khan on Oct 11.

## **Atal Behari Vajpayee**

To ensure a strong sense of continuity in his Government, Prime Minister Atal Behari Vajpayee on October 30, left his senior cabinet colleagues holding key portfolios undisturbed as he allocated work to his 70-member Council of Ministers sworn in.

## **Dr. Julius Nyerere**

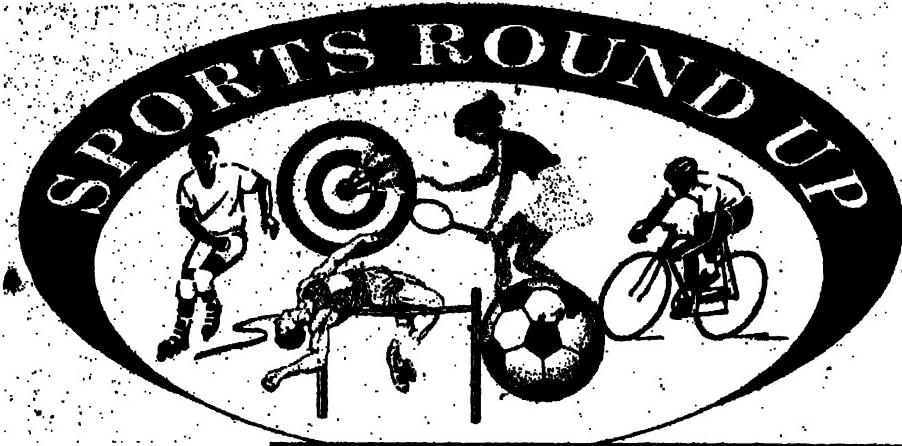
Dr. Julius Nyerere, African statesman who led Tanzania to independence, died in a London hospital on Oct. 14. He was 77.

## **Mr. Abdurrahman Wahid**

Mr. Abdurrahman Wahid, Islamic scholar with gilt-edged secular credentials, has been sworn in as Indonesia's new President, after he defeated the popular leader of the masses, Ms. Megawati Sukarnoputri.

## **Villasrao Deshmukh**

Senior Congress leader Villasrao Deshmukh has been sworn in as the 21st Chief Minister of Maharashtra. Along with Villasrao Deshmukh, State Nationalist Congress Party Chief Chagan Bhujbal was sworn in as the Deputy Chief Minister.



## TENNIS

**President's Cup :** Rising German star Nicolas Kiefer won the fourth ATP Tour Title of his career on September 14, when he scored a straight sets victory over George Bastl of Switzerland in the final of the \$ 475,000 President's Cup.

Kiefer, the 22-year-old third-seed, beat unseeded qualifier Bastl 6-4, 6-2. The German had previously won titles in Toulouse, France in 1997 and in Tokyo and Halle, Germany earlier this year.

**Fed Cup :** A US "dream team" led by world number two Lindsay Davenport recaptured the Fed Cup on September 20, Davenport clinching the victory with a win over Russia's Elena Likhovtseva.

Wimbledon champion Davenport gave the United States an assassailable 3-0 lead in the best-of five match tie with her 6-4, 6-4 win over 17th-ranked Likhovtseva. Russia's Elena Dementieva, 17 and playing Fed Cup singles for the first time, rallied for a 1-6, 6-3, 7-6 (7-5) victory over world number three Venus Williams in the meaningless fourth singles match.

**Princess Cup :** American number one seed Lindsay Davenport beat Monica Seles 7-5, 7-6 (7-1) to take the Princess Cup at Tokyo. Davenport was able to play her best in the latter games of the two sets and used her strong serve to beat number two seed Seles in a masterful contest.

Davenport clinched victory in the second set tie-break, taking advantage

of unforced errors to end a three-year run of Princess Cup titles by Seles.

Davenport received \$ 80,000 for the win while Seles took home \$ 40,000.

**Grand Slam Cup :** Greg Rusedski used his big serve to overpower Tommy Haas in the four sets on October 4, at Munich and captured the richest prize in tennis, picking up \$ 1.3 million as the winner of the Grand Slam. Rusedski fired 29 aces to win 6-4, 6-4, 6-7 (5-7), 7-6 (7-5).

Haas, a 21-year-old German ranked No. 11 in the world, had to console himself with \$ 650,000.

## HOCKEY

**Bank of Baroda National Junior Women's Hockey Championship:** Orissa played like true champions. True grit was on display as they held their nerves till the end, when Haryana attempted a late assault, eventually overcoming them 3-2 at Mumbai on September 30. They ended up as deserving winners on the 31st Bank of Baroda national junior women's hockey championship at the BHA Mahindra Stadium, Mumbai.

Early on, Haryana's Balwinder Kaur dribbled past two of Orissa's defenders but narrowly missed the net. The seventh minute saw Orissa charge in full strength. Anjela Beck's free pass gave Pratimaa Tirkey an excellent chance, as she brought on Orissa's first goal, made easier by Navpreet Kaur's fumble near the goal.

## CRICKET

**Moin-Ud-Dowla Gold Cup :** Last year's joint winners Madras Rubber Factory (MRF), Chennai registered a 154-run win over Indian Oil Corporation (IOC), Mumbai in the final to lift the all-India Moin-Ud-Dowla Gold Cup Cricket tournament at Hyderabad on September 17. MRF, electing to bat first posted a mammoth 323 for 7 in the stipulated 50 overs and then bundled out IOC for 169 in 42.3 overs at the Gymkhana ground.

**Kallis Chosen Cricketer of the Year :** South African all rounder Jacques Kallis has bagged the 'CEAT International Cricketer of the Year Award for 1998-99 and received the award which carries a cash prize of Rs. Five Lakhs.

**DMC One-day Cricket International :** Pakistan made it a clean sweep in the three match one-day cricket international with a decisive seven-wicket victory over the West Indies at Toronto on September 20.

Set just 162 to win another lack-luster West Indian batting effort, Pakistan cruised to the target for the loss of just three wickets with more than 10-overs of the 50-over contest to spare.

**LG Cup :** The South Africans concluded their Kenyan safari with a meaty 'catch', the LG Cup at Nairobi Gymkhana on Oct. 3. In a testing test of mental toughness as well as abilities to adapt, Hansie Cronje and his men emerged superior to their opponent in a contest which befitting the occasion in a well-concluded tournament. A mere 26 runs separated the teams but South Africa deserved the honour for scripting a come back from a tight spot. After a modest beginning, 18 for three, the South African created a stage which was always going to be challenging for the Indians despite the fact that the pitch held no alarms for sensible batsmen in the afternoon.

### The Score :

South Africa : 225 for 9

India : 209 all out

## AHTLETICS

**Loupe Beats World Mark :** Telga Loupe's sprint to the finish line on September 26, at the Berlin marathon carried her to a world best, snapping by four seconds her own mark for women set in last year.

Psychology looked to be the key to the results, with Milan fired up by recent criticism as it won 4-0 while Juventus paid the price for being over confident in its 2-0 upset.

**SAF Games :** India's long distance specialist Sunita Rani emerged the second athlete to score a treble as the 8th SAF Games' Track and Field competition ended in a blaze of glory for India of the final day on the four day meet at Dashrath Stadium, Kathmandu on September 29. India ended 22 golds, 18 silvers and 8 bronze medals as against Sri Lanka's 4 goals, 11 silvers and 10 bronze medals.

Sunita, a petite 20-year-old won her third Gold medal with a new record in two days. Thus she joined Sri Lanka's Damayanthi Darsha who too won three individual gold medals. As many as seven meet records were obliterated out of nine finals with India alone accounting for five. Sri Lanka broke the other two. Interestingly, India won all the four finals in the distaff side with records.

Big built Jagdish Bishnoi fired the Javelin to a new SAF record distance of 78.0 m. It was one-two for India as Ramandeep Singh picked up the silver medal with an effort of 77.52 m. Both bettered the previous mark of 71.92 m set by Mohammad Rashid of Pakistan at Calcutta in 1987.

Pramila Ganapathy, now full time into broad jump, touched 6.37 m in her fifth jump to claim the long jump gold and the record. The previous mark was 6.71 m established by Shabana Akhtar of Pakistan, which incidentally gave that country its first international gold in 1995.

India took both the women's shorter and the longer, relay gold medals with ease. The twin victory of India was done in style and with new

marks. This meant Damayanthi Darsha's dream of adding two more relay gold medals went unrealised.

### The results :

**Men :** 10,000 1. K. Sankar (Ind) 30.53.55s, 2.A.I. Cooray (Sn) 30.57.23, 3. Y. Bahadur Pudashaini (Nep) 31.00.26. 400m hurdles : 1. Asoka Jayasundara (Sri) 50.02s, (NMR, previous 50.14s by Ghulam Abbas (Pak), 91), 2. Allah Ditta (Pak) 50.49, 3. Harijan Ratnayake (Sri) 50.73.

**Javelin:** 1, Jagdish Bishnoi (Ind) 78.01 m (NMR, previous 71.92m by Mohammad Rashid (Pak), 87), 2. Ramandeep Singh (Ind) 77.52 (NMR), 3. K. Ahmed Khan (Nep) 70.39.

**4x100 relay:** 1. India (C. Thirugnanadurai, Vikram Singh, Anand Menezes, Anil Kumar) 40.36s, 2. Pakistan 40.59, 3. Bangladesh 40.67.

**4x400m relay :** 1. Sri Lanka (Suminda Mendis, V. Ratnakumara, Sumeda Arunashanth, Rohan Pradeep Kumara) 3:05.28s (NMR, previous 3:07.57s by Sri Lanka, 95), 2. India 3:05.71, 3. Pakistan 3:12.81).

**Women :** 5,000m: 1 Sunita Rani (Ind) 15.56.46s (NMR, previous 16:34.51s by Madhuri Saxena, 95), 2 S.N. Jayasena (Sri) 17.17.52, 3. Molly Biju (Ind) 16:25.30.

**Long jump:** 1. Pramila Ganapathy (Ind) 6.37m (NMR, previous 6.31m by Shabana Akhtar (Pak), 95), 2. Anju Markose (Ind) 6.22, 3. Nayathikumar Chandrasena (Sn) 6.04.

**4x100 m relay:** 1. India (V. Jayalakshmi, Vinita Tripathi, Saraswati Dey, P.T. Usha) 44.64s (NMR, previous 44.74s by Sri Lanka, 95). 2. Sri Lanka 44.71 (BMR), 3. Nepal 49.13, 4x400m relay: India (M.K. Asha), K.C Rosakutty, Jincy Phillip, K.M. Bennamol) 3:32.35s (NMR, previous 3:36.22 by India, 95), 2 Sri Lanka 3:35.42, 3. Nepal 4:08.91.

## CHESS

**Asian Junior Title :** National A Champion Krishnan Sasikiran clinched the Asian junior chess title, defeating Yulliano Erwin in the final round on a dramatic day in continental championship at Vietnam on September 24.

Overnight leaders Saikiran and Hafizulhimi of Malaysia were locked in a close battle with 7.5 points each but the Malaysian was stunned by Iran's Ehsan Ghaen Meghami (5.5) while promising Filipino Laylo Darwin won his game to finish behind the Indian.

**37th World Junior Chess Championship :** Grandmother Alexander Gatkin of Russia and Maria Kouvetsou of Greece were crowned the boys and girls champions respectively in the 37th World Junior Chess Championship at Yerevan on October 1.

In the final round, Gatkin defeated Giorgi Bakhtadze of Georgia to tally 10.5 points while Kouvetsou was declared winner on a better tie-break after four players tied at 8.5 points. India's Nisha Mohota came ninth with 7.5 points among the girls while S. Kidambi was 36th in the boys section with 6.5 points.

## GOLD

**A.V. Thomas Gold Cup :** The Amish Jaitha from Pune turn out to be a glorious exception may not have been an accident really, on the final day of the A.V. Thomas Gold Cup amateur championship - a categorical event on the cosmopolitan club Course at Chennai.

For, the 23-year old Jaitha's scorching five-under 67, which saw him win the championship by five strokes at once underlined the young man's potential as a golfer of considerable merit on September 18.

**Ryder Cup :** Justin Leonard's dramatic 45-foot birdie on the 17th hole completed the greatest comeback in Ryder Cup history at Brookline on September 28, and brought the trophy back to the United States.

US Players won eight singles matches and halved another to beat Europe 14-1/2 to 8-1/2 at the country club and avoid an unprecedented third loss in a row in the biennial golf matches.

**Dunhill Cup :** The surging popularity of gold seems sure to continue in Spain after their first

## SPORTS ROUND UP

Dunhill Cup title on October 1, at St Andrews, a 2-1 victory over Australia with wins for Jose Maria Olazabal and Miguel Angel Jimenez.

In the finals, Olazabal beat Stephen Leaney 72-78 and Jimenez beat Peter O'Malley 73-75. Australia's Craig Parry defeated Sergio Garcia on the first play-off hole after tying at 3-under 69.

## BADMINTON

**Inter-State Badminton Championship :** Petroleum Sports Control Board completed Railways misery in the Central Zone inter-state badminton championship by handing out humiliating defeats in the men's and women's finals at the Swai Man Singh Stadium at Jaipur.

Even as Railways stood dethroned in all four categories, PSCB gained the right to represent central zone in the men's National inter-state title for the Rohimtoola Cup, and the women's Chadda Cup. Similarly Air-India qualified to contest the boys Narang Cup and Girl's Shafi Querish Cup.

**Yonex German Open :** P. Gopi Chand's bid to emulate his mentor, Prakash Padukone, in winning a Grand Prix title, failed as he went down in three games to China's Xia Xuanze at 3-15, 15-3, 4-15 in the final of the Yonex German Open Badminton Championship in Duisburg on October 10.

Gopi Chand had the consolation of winning the Fairplay Award that it was his best showing in an international championship, ever since he made the final of the Indian Open Grand Prix in Delhi in 1997.

## FOOTBALL

**Nam Ad-Airlines Gold Cup Football Title :** Mohammadan Sporting, Dhaka succeeded in its defensive ploy keeping the score-line 1-1 in regulation and extra-time and then shot out local favourite Kingfisher East Bengal in the tie-breaker 4-3 for the Nam All-Airlines Gold Cup Football title at Haldia on September 27. Both

sides found it difficult to play under slushy conditions as heavy rains the previous night had swamped the ground.

East Bengal, dogged big injuries to key players like Schamer Jushar Rakshit and, defenders Suley Musah and Ratan Singh early on, failed to display the coherence and technical maturity that helped it thrash Mohen Bagan 3-1 in the semifinal. The slush hindered play and opened up fissures in the otherwise tight East Bengal defence. This was evident in the fact that Mohammadan Sporting stole an early lead.

**Subrato Mukherjee Cup Football Tournament :** The All Nepal Football Academy (ANFA) Juniors, Kathmandu, coasted to a comfortable 3-0 over SKKC Adarsh Seva Vidyalaya, Varanasi, to claim the sub-junior title in the Subrato Mukherjee Cup Football tournament at the Ambedkar Stadium, New Delhi on September 27.

The lone foreign entrant in the tournament, the ANFA juniors team asserted its supremacy to become the first international team to bag the Subrato Cup. Thirteen-year old Saughat Subba's brace in the span of three minutes in the first half gave the Nepal outfit a flying start. Prashant-Giri's penalty conversion in the 40th minute completed the scoreline.

## SQUASH

**Al Ahram World Men's Team Squash Championship :** Egypt held off a spirited challenge from Wales to win the Al Ahram 16th World Men's team squash championship. The 3-0 scoreline is misleading because the Welsh fought all the way. Ahmed Berada was on the verge of defeat at 2-6 in the decider with Alex Gough but rose like the Sphinx to carve out an incredible victory at Cairo. It had spanned 87 brushing minutes and Baroda edged home 9-3, 9-3, 4-9, 0-9, 9-6. Omar Elboroushy had the fans in a frenzy with an unexpected 9-6, 2-9, 10-8, 9-4 win over David Evans in 64 minutes the dainty dancer, Amar Shabona defeated Greg Tippings 9-1, 9-6 in the dead rubber.

## BILLIARDS

**Riley's Billiards Test :** England put the lid on India's aspirations to win the Riley's billiards Test 9-2 at the Bombay Gymkhana on September 18. Asian Games gold medallist Ashok Shandilya fought hard but was forced to concede a 2-3 defeat to Peter Gilchrist in what turned out to be the final match of the test. The England came back from 0-99 in the fifth and deciding game to score an unfinished 150 break to win the ninth match for England. \*\*\*

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# SOCIAL SCIENCE ROUND-UP

## Globalisation has benefitted women : UN Report

Contrary to popular belief, the 1999 World Survey on the Role of Women in Development brought out by the UN says that the gender impact of globalisation on the world of work is actually mixed.

For one, it has opened up employment opportunities for them. Two, it has led to a steady increase in the female share of paid employment. It has also improved the purchasing power of their families and strengthened their self esteem. While on the one hand, the new opportunities of employment are potentially empowering, it has also unleashed forces of economic volatility, job in security and loss of livelihood which has been inimical to gender equality.

Striking an optimistic note, the UN report says that increased participation of women in paid work has not only risen in almost all regions of the world, it has also spearheaded overall employment growth in recent years. "In fact, with the sole exception of Africa, women's employment has grown substantially faster than men's since 1980."

For instance, in 1978 Bangladesh had only four garment factories but by 1995, it had 2400 employing 1.2 million workers. Ninety per cent of them were women under the age of 25. Though Bangladesh is perhaps an extreme case, many other countries like Indonesia, Mauritius, Philippines, Republic of Korea, Taiwan and Tunisia have also seen dramatic increases both in export manufacturing capacity and in the number and share of women in the manufacturing labour force, says the report. On the flip side, the report adds that though women have been incorporated into paid employment in greater numbers in the last two decades, these have usually been under conditions inferior to those associated with men's employment.

A disturbing trend, according to the report, appears to be quickening of the process of women's induction into paid employment with the proliferation of precarious forms of employment in the last two decades.

In assessing how the gender effects of market liberalisation have transformed rural women's work, the survey addresses the gender division of labour in production and the implications of privatisation on women's

property and user rights on land, especially in sub-Saharan Africa and South Asia. It provides an overview of how rural women have been responding to the changing economic environment brought about by market liberalisation.

The report observes that globalisation has significantly changed the pattern of employment where "irregular" conditions once associated with women's secondary employment have become widespread for both sexes. However, it adds, globalisation does not relieve the gender-based discriminatory practices that characterise every state of economic development. Nor does it minimise gender inequalities but might in some circumstances exacerbate them.

## Implementing SC Order on Sexual Harassment

Though two years have passed since the Supreme Court issued its directive on sexual harassment in the work place, most organisations have not set up any mechanism to enforce it. The apex Court has sought that any complaint of sexual harassment should ideally be sorted out within the work place, yet most women are condemned to silence in the absence of an objective internal forum where they can raise their grievances.

The Supreme Court defines sexual harassment to include physical contact and advances, demands or request for sexual favours, sexually coloured remarks, showing pornography and any other unwelcome physical, verbal or non-verbal conduct of a sexual nature.

However, a few of the capital's premier institutions have now begun efforts to set up viable mechanisms to address this problem. Jawaharlal Nehru University has reconstituted its Gender Sensitisation Committee against Sexual Harassment (GCSCH) to include a women chair-person, two faculty members, two students, two wardens, one faculty member from the Gender Studies Forum, three Union representatives, one eminent woman academic from another university, an NGO with special experience in this field and a woman counsellor. The committee will engage in sensitisation and awareness generation, crisis management and mediation, formal redressal and enquiry.

The Delhi University has also come out

with a draft report on guidelines against sexual harassment. The draft report was framed by a committee comprising eminent professors drawn from Delhi University's various colleges.

The Committee built on the Supreme Court's definition of sexual harassment to include motorbike/automobile pursuits, demanding that a woman colleague pressure exists or not and keeping the door closed while discussing answers/projects/theses work with students. The Committee also frowned on asking a researcher/student to meet in a place or at a time when most people would have left, crank phone calls e-mail or shadowing or threatening to deny permanency promotion confirmation of transfer and so on. The possible harassers too were identified as teachers research guides' higher authorities fellow students or workers ex-students Karmcharis fellow travellers in buses bike hoodlums doctors or employees of health care centres etc.

The Committee recommends a notification prohibiting any form of sexual harassment be publicised on campuses hostels, libraries, health centres and all departments.

This should be printed in prospectus as well. Upholding gender equality is sought to be made part of service conduct rules. The committee also seeks to provide an appropriate and empowered mechanism in colleges/campuses and hostels.

It seeks that the University issue guidelines defining sexual harassment and make these part of service conduct rules. A section on sexual harassment is sought to be included in the prospectus so that everyone is aware of complaint mechanisms. Punitive action will be commensurated with the nature of the offence and range from reprimand, suspension, dismissal, expulsion or even termination.

Similarly a leading hotel chain in the capital has also constituted its own panel to ensure that the work place is free from discriminating behaviour including sexual harassment.

In the hotel work environment such harassment could mean making submission to sexual advances-a term or condition for employment decisions, creating an intimidating work atmosphere, making inquiries into a person's sexual experiences or

activities, displaying sexually suggestive objects, pictures or cartoons, unwelcome remarks or physical contact and sexual epithets or jokes.

### SC Moots Euro Norms for Scooters

Concerned over the growing vehicular pollution in Delhi and its satellite towns, the Supreme Court on October 18, asked the Centre whether two and three-wheeler scooters could also be subjected to Euro I and Euro II norms as had been done in the case of cars.

Considering the "level of pollution still existing in the National Capital Region (NCR), we have suggested that it is desirable to impose Euro I and Euro II norms...also to two and three-wheelers with suitable modifications", a Bench comprising Chief Justice Adarsh Sein Anand, Justice B N. Kirpal and V.N. Khare said.

The Court also asked additional Solicitor-General Kirit N. Raval to respond to suggestions which include a team on registration of diesel cars in Delhi as suggested by the Environment Pollution (Prevention and Control) Authority (EPCA) headed by Bhure Lal.

Earlier on April 29, the Court had said that no car without conforming to Euro I norm would be registered in the NCR after June 1 and without Euro II norm after April 1, 2000.

The Court fixed November 24 for hearing the matter after all the parties file their response to the recommendations made by the EPCA.

A recent report of EPCA suggested use of Compressed Natural gas in all commercial vehicles in the NCR.

### Crack Team to Push Reforms

Prime Minister Atal Behari Vajpyee is taking direct charge of the economy. He proposes to play a proactive role in formulating economic policies and directing the course of reforms.

As a first step, Mr. Vajpayee has put together a crack team of his Cabinet colleagues. He will lead this team called the Cabinet Committee on Economic Reforms, and guide the formulation of economic policies.

It is a compact team : External Affairs Minister Jaswant Singh, Commerce and Industry Minister Murasoli Maran, Finance Minister Yashwant Sinha and Planning Commission Deputy Chairman K.C. Pant. Provision has been made for getting other ministers on board, when policies pertaining to their portfolios are discussed.

The Prime Minister's deeper involve-

ment in economic matters is also a necessity now in context of the large and unwieldy Cabinet. Men in charge of core economic ministries, political heavy weight drawn from various constituents of the ruling alliance, would like to deal directly with the Prime Minister. The Prime Minister's active involvement will mean that a holistic view of economic reform will be taken rather than sectoral views as presented by the core economic ministries.

Mr. Vajpayee also proposes to step up his interaction with business, industry and economists to receive inputs from them directly.

The Prime Minister began taking a keen interest in economic matters towards the end of last year. He started the process of holding institutionalised policy consultations by setting up two advisory councils — are comprising top business people and the other renowned economists.

He also took the initiative to appoint ministerial groups on telecom and infrastructure to get private telecom projects off the ground and build an ambitious expressway network, air ports and seaports.

Economic reforms in India are nearly a decade old and have been carried out under successive Prime Ministers. But this is the first time that a Cabinet Committee on Economic Reforms has been created. Past reforms were directed from the Finance Ministry.

### Experts to Finalise Storm Surge Reduction Plan

A cyclone hit Orissa on October 18, 1999 killing more than 60, flooding large areas, destroying crops, disrupting rail and communication links. The extent of the damage is still being assessed.

About three lakh people died in a 1970 cyclone in Bangladesh, setting the country's economic development back by four or five years, but giving a push to research on storm surges. S.K. Dube of Indian Institute of Technology's Centre for Atmospheric Sciences defines a storm surge as "the abnormal rise of sea level associated with the movement of tropical cyclones."

According to official figures, more than half a million people have been killed by storm surges in the marginal seas of the Indian ocean this century.

Countries bordering the Bay of Bengal or the Arabian Sea suffer some of the world's worst natural disasters—India is among the worst hit. It is essential then to develop a knowledge base about storms in the region. Experts from various countries have decided

to come together to finalise a specific \$45 million, five year plan on Storm Surge Disaster Reduction for the Northern part of Indian ocean—the countries involved range from Australia to Iran.

By the end of the exercise they hope to come out with a systematic, coordinated action plan and get the go-ahead on national and international agency funding to develop infrastructure for effective and timely storm surge forecasts, warning and management. It is hoped this would not just save lives and property but encourage coastal development. Official estimates suggest that every dollar spent is being prepared can save a hundred dollars or more being spent after the event. Behind the efforts are UNESCO, the Inter-governmental Oceanographic Commission, the World Meteorological Organisation, Department of Ocean development, Govt. of India and the IIT being the hosts.

Why is the area so bad ? Some of the contributing factors in the Bay of Bengal, for instance, are shallow coastal water, thickly populated, low-lying islands, a complex coastline and innumerable inlets, including one of the world's largest river systems—Ganga—Brahmaputra—Meghna.

Tides are large with a range of several metres. The worst coastal flooding comes when peak surges coincide with high tides. That's not all surges penetrate inland, thanks to rivers and interaction between river flow and surge causes even more flooding.

And, the effect goes well beyond the immediate. Flooding leaves behind its own troubles, in degraded and contaminated soil and water bodies.

A new contributing factor now being looked at is climate change. A sea-level rise of just one metre would permanently flood most of the Maldives, parts of Sri Lanka and large parts of Bangladesh.

So, what exactly needs to be done ? Cyclone forecasting has made headway but storm surge forecasting has not gone as far. Those associated with framing the proposal now set for consideration say the devastation caused by a storm surge can be mitigated substantially if the height and time of peak water level at the coast and the area likely to be inundated can be forecast reliably. The idea then is to train and equip people and have a warning-response mechanism in place. And, educate people to ensure an "appropriate response"—without any more delay.



# SCINTILLATING SCIENCE

- Vitamin K helps in the clotting of blood.
- Plants are green due to the presence of Chlorophyll in them.
- The wavelength of Red colour is maximum amongst all the colours.
- In cow's milk, the proportion of water is 60%.
- Simcard is used in cellular phone.
- According to WHO maximum people in the world die of TB, amongst all the diseases. Amongst those dying of TB, 25% are in India.
- The range of Agni II missile is 2000 Km.
- Vitamins in food are affected due to food processing and conservation.
- Marina trench in Pacific Ocean is the deepest point in ocean, at the depth of about 11,000 metres from sea level.
- Iodised salt helps in checking goitre disease.
- Earth quakes are recorded on seismograph.
- DNA transfers hereditary information from one generation to the other.
- At - 40° Fahrenheit and centigrade scales show the same temperature.
- Newton gave the universal law of gravitation.
- Night blindness is caused by Vitamin A deficiency.
- Beri-Beri is caused by Vitamin B deficiency.
- Scurvy is caused by Vitamin C deficiency.
- Ricket is caused by Vitamin D deficiency.
- Nautical mile is the unit of distance in seas.
- Mendel gave the laws of inheritance.
- Deficiency of Vitamin B-12 causes anaemia in males.
- The term Y2K stands for the 'Year 2000' which refers to the inability of storing date-2000' in a computer.
- In the LPG gas cylinder, the gas found in maximum quantity is butane.
- Elisa Test is used for detecting AIDS virus. Insulin is produced by pancreas.
- Chemical sucrose is found in sugar cane.
- Cat-fish is a fish without scales.
- Theine is a stimulant found in tea and caffeine is a stimulant found in coffee.
- Hygrometer is an instrument used to measure Relative humidity.
- Mercury and Venus are the two planets between earth and Sun.
- Decimal system originated in India.
- Carbon di oxide is an example of a green house gas.
- In onion, phosphorus is found.
- Acoustics is the study of sound.
- Blood group 'O' is a universal donor.
- Blood group 'AB' is a universal recipient.
- Phosphorus is used on the tip of the matchstick.
- Iron is found in large quantities in green vegetables.
- Barometer is used to measure air-pressure.
- Temperature at the core of the earth is approximately 2000° C.
- X-ray can differentiate between old eggs and fresh eggs.
- Sulphur is added to rubber to make it strong and elastic.
- Gunpowder is a mixture of Nitrate, sulphur and Charcoal.
- Copper is mixed with gold to make ornaments.

## SCINTILLATING SCIENCE

- ❑ The outermost layer of skin is called epidermis.
- ❑ We feel thirsty when osmotic pressure of blood becomes low.
- ❑ RBC in blood is produced by bone marrow.
- ❑ Uranium is obtained from the mineral pitchblend.
- ❑ Methane is the main constituent of Gobar gas.
- ❑ Steel is more elastic than rubber.
- ❑ Theory of relativity was propounded by Albert Einstein.
- ❑ Ozone layer of the atmosphere protects us from ultraviolet radiation.
- ❑ Iron rusts due to oxidation.
- ❑ Ritcher Scale is used to measure the intensity of Earthquake.
- ❑ Bacteria is the minutest living organism found in the earth.
- ❑ In the air, the element Nitrogen is found in the largest proportion.
- ❑ The temperature on the outermost surface of Sun is 6000° C.
- ❑ Fuse wire is made from 63% tin and 37% lead.
- ❑ The frequency of AC Mains in India is 50 cycle per second.
- ❑ An irregular piece of camphor moves very fast in water because when camphor dissolves in water, the surface tension of water becomes less.
- ❑ Aryabhatta was the first Indian to propound that the earth rotates on its axis.
- ❑ Action of zinc on sulphuric acid produces hydrogen.
- ❑ Heating of lime stone produces carbon dioxide.
- ❑ Heating of Potassium Chlorate produces oxygen.
- ❑ Heating Naptha with air produces Ammonia.
- ❑ The efficiency of an ordinary machine is always less than 100%.
- ❑ A sponge drenched in water when pressed still retains water because of cellular action.
- ❑ Carbon di oxide is used in fire extinguisher.
- ❑ Silicon and oxygen are the two elements normally found in the surface of earth.
- ❑ The speed of an oscillating watch can be increased by reducing the length of pendulum.
- ❑ The atoms of oxygen and nitrogen form sigma and Pi bonds.
- ❑ Carrot is an example of modified root.
- ❑ Hybrid maize is an example of man-made crop not available in nature.
- ❑ Landsteiner discovered the blood groups in human beings.
- ❑ The first solar-energy operated railway station in India is at Yedakumari.
- ❑ The density of water is maximum at 4°C
- ❑ Dermatology is a branch of medical science which deals with human skin and the diseases related to the human skin.
- ❑ Diamond is an allotrope of carbon.
- ❑ Sodium chloride is the name of the common salt we use for consumption in food.
- ❑ Kidney patients are kept on dialysis.
- ❑ The rate of breathing in human beings is 16-18 times per minute.
- ❑ The pulse rate in human beings is 68-72 per minute.
- ❑ The normal blood pressure in human beings is 80/120.
- ❑ In the huge galaxy called milky way our solar system is located on its lower surface.
- ❑ Pituitary gland receives message from hypothalamus and transmit it to the endocrine glands.
- ❑ Man (Homo Sapiens) first appeared on the earth during pleistocene period.
- ❑ Methane, butane and propane are mainly found in the liquefied petroleum gas.
- ❑ We receive radio signals because of the presence of ionosphere which reflects radio signals back to the earth stations.
- ❑ Stephenson invented steam engine.
- ❑ Green plants and trees are the primary producers in the eco-system.
- ❑ In the fertiliser urea, nitrogen is found as amide.
- ❑ Consumption of too much polished rice leads to the deficiency of Vitamin B.

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# CURRENT Precise Panorama

## MNC NOT TO SELL 'KILLER GENE'

The opposition to "terminator gene" by India's farmers and the Government was vindicated when the multinational seed giant Monsanto abandoned its plan to commercialise this controversial technique. The technology, which renders seeds from the first crop sterile, is engineered to force farmers to buy new seeds every season.

In India and other developing countries there has been an uproar. Apart from the safety aspect which causes more concern in the West, in the developing countries, the focus is on the poorer farmer who will have to spend on new seeds every season. The farmers' agitations in India led to the ban on the terminator gene technology. During his last visit to London, India's then Commerce Minister Ram Krishna Hegde declared that it would never be allowed in India.

Of course, constant vigilance is needed as not only other seed companies are involved in similar projects, but Monsanto has not ruled out other projects that could help them protect their investments in research. One technique that may be developed will ensure that the crop from the genetically-modified seed will sprout only as an ordinary seed. If the farmer wants to have similar features in the next crop, he will have to buy new seeds.

What forced Monsanto to rethink its unpopular strategy were not the angry farmers of Karnataka but the Rockefeller Foundation in New York. Its Chairman, Gordon Conway, who had worked in India, had taken up the matter with Monsanto.

He got a letter from Monsanto chief executive Robert Shapiro, saying that the company would not commercialise sterile seed technologies such as the one dubbed "terminator".

Of course, Monsanto remains committed to biotechnology "as a safe, sustainable tool for farmers and an important contribution to the future

success of agriculture in meeting the world's need for food and fibre."

Monsanto has not reacted to growing public concern a day too early. The public attitude has been reflected in the share prices of some of the companies. The number of anti-GM campaigners in Europe are growing. Their agitations are getting media attention.

The whole business of genetically modified food is causing concern in Europe and the American companies, leaders in the field are facing hostile public reaction. They are finding that with all American power and influence and the sacred creed of free market, they are unable to prize open the European Union market for their controversial products.

In fact, food retailers in some European countries are vying with each other in reducing the sale of food products containing genetically modified raw material. Some scientists in Britain are also sounding alarm bells about possible health hazards of genetically modified food.

Despite attempt by business interests to discredit such scientists, Lancet, the influential medical research journal, will carry the findings by Dr. Arpad Pusztai, who suggested that such food may stunt rats' growth. He was forced out of his job at a research institute after he voiced his concerns on a TV programme. The hostile reaction to his work by the Government and several scientists notwithstanding, he has been offered research assignments in Europe.

## PLANTS THAT PRODUCE BIODEGRADABLE PLASTIC

Money does not grow on trees. But credit cards or, or atleast their raw material, might grow in fields, thanks to genetically modified (GM) plants that can produce biodegradable plastic.

The research into developing the plants came under fire after its publication in a scientific journal. When

it was revealed that the prime mover behind the technology was Monsanto, the American biotechnology giant.

Pete Riley, a campaigner for the environmental group Friends of the Earth, called it "a public relations stunt using what is perceived as a beneficial use of GM to repair Monsanto's damaged image".

But scientists at the company said they had been working on the plants principally oil seed rape, contain four added genes from bacteria that naturally produce a biodegradable public called PHBV. Inserting the genes and manipulating the plants' metabolism was "a considerable feat of genetic engineering" according to Nature Biotechnology magazine, which has published as peer-reviewed paper on the experiment in its latest issue.

"The bottom line is that it works", said Ken Grays of Monsanto, the lead scientist in the research. "This is really a first step. The plants aren't producing a large volume of plastic, but it is on the way".

Using bacteria alone to produce plastic costs five times as much as producing it from crude oil, the principal source of plastics and petroleum. But the price of extracted oil and its derivatives is expected to rise which would make GM plants more competitive as a source. Further more, fossil-based plastics decompose slowly, leading to waste management problems.

Dr. Grays said : "This is a very important first step but I think we would be fortunate if we saw this in (commercial use) 10 years from now".

The sugar industry in both Australia and Brazil aims to use GM and conventional technologies to produce biodegradable plastics from sugarcane.

However, Mr. Riley said people should not be using so much plastics in the first place. "If we are worried about plastic we need to deal with the human end". Alternatives such as paper wrapping should be examined. "We've

## CURRENT PRECISE PANORAMA

already got a natural plastic. It's called cellulose," he said.

### WAHEED : NEW INDONESIAN PRESIDENT

After two close votes in the People Consultative Assembly (MPR), leading and moderate Muslim cleric Abdurrahman Waheed was on October 20, 1999, sworn in as the fourth President of Indonesia.

While democracy has finally come into its own after four decades of authoritarian rule in Indonesia, the nation faces an uncertain future. It remains to be seen whether widespread unrest will deepen in view of the defeat of Megawati Sukarnoputri, the popular leader of the party which won the most votes in the recent general elections.

Since president-elect Waheed is blind and infirm, having suffered at least the two strokes, it remains to be seen whether his undoubted charisma and political skill can bring an end to the current wide-spread discord throughout the Indonesian archipelago. In the end, the presidential election was a straight fight between Waheed and Megawati.

The MPR rejected by 355 votes to 322 the "accountability reports" presented earlier by interim President B.J. Habibie. This was tantamount to passing a vote of no confidence against him. Habibie could have stayed in the presidential contest, but after the vote he chose to respect the MPR mandate and withdrew from the race.

For a brief while, Habibie's Golkar Party looked set to nominate its Chairman and House of representatives Speaker Akbar Tandjung for presidency but shied away at the very last moment. This sparked rumours of a deal between Golkar and either Waheed or Megawati. Since both Golkar and Megawati's Democratic Party of Struggle (PDIP) are secular, Megawati could have fruitfully offered Tandjung the Vice-Presidency in return for his support. But either Megawati, displaying the failing which cost her the Presidency failed with coalition-building or else Waheed moved faster than she did.

Whatever deals were made, Golkar announced support to Waheed. Add another maverick Muslim candidate, put up jointly by small Muslim parties, withdrew latter. Waheed won by 373

votes to 313 or by 54 per cent to 45 per cent of the total vote.

One simple fact illustrates Megawati's failure and Waheed's skill in bringing about this result. After the June general elections, Megawati's PDIP emerged as the largest single party with 153 members. She failed to augment its strength subsequently even though Waheed had originally made an alliance with her.

Waheed's National Awakening Party had won only 54 seats, but through astute coalition building he multiplied this number more than seven times by the time he was elected.

In Jakarta, mobs have long been threatening to pursue revolution of their popular idol Megawati was deprived of the Presidency by the machinations of the elite. Initial indications are that they are trying to fulfil that promise.

Waheed's great skill lies in his ability to talk to people and have friends across the country's political spectrum. Now, as President, Waheed will have to bring the nation together despite his poor health.

### US DEPLOYED N-ARMS IN 27 COUNTRIES : REPORT

The US had secretly deployed nuclear weapons in 27 countries and territories during the cold war, according to a recently declassified pentagon document.

This revelation is contained in the cover article of the prestigious Bulletin of Atomic Scientists in the forthcoming November-December issue which extensively refers to the Pentagon document.

Called "where They were", the Bulletin's report is compiled by a group of nuclear weapons experts and a scientist attached to the US Natural Resources Defence Council.

The information was obtained on the basis of the Freedom of Information Act, which was originally filed in 1985, according to the report. The Bulletin report is based on a formerly top-secret study entitled, "History of the Custody and Deployment of Nuclear Weapons July 1945 through September 1977".

It was prepared by the office of Secretary of Defence in 1978 in the Pentagon. Initially, the Pentagon declassified only portions of the

document and blacked out the names of many country the report stated.

According to the report, "Even though the US withdrew nuclear weapons from many of these countries, the Pentagon still refuses to acknowledge some basic facts about the deployments".

The report quotes a confidential note of former US Defence Secretary James R. Schlesinger, where he has expressed an urgent need "to remove" nuclear weapons from Taiwan. Washington pulled its nuclear weapons from Taiwan in 70s to improve its relations with China.

According to the report, the US stationed nuclear weapons in "non-nuclear" Japan, Greenland and Iceland. Other countries unknowingly hosted US nukes. The report states that Japan would have been used for nuclear operations against China or the former Soviet Union in the event of a war.

It adds that during the cold war, 18 sovereign nations and nine former or current American territories or possessions hosted US nuclear weapons.

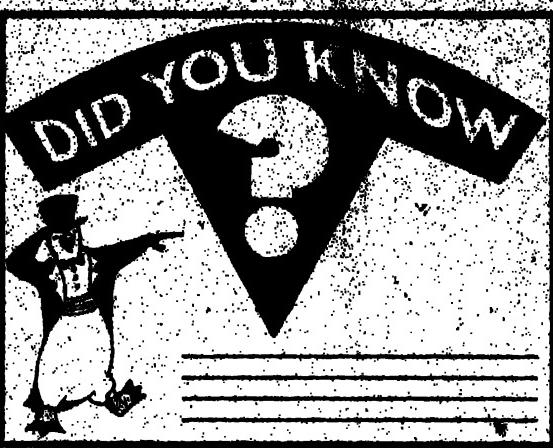
Says the report : "Today, the US is the only nuclear power that deploys nuclear weapons overseas. US bombs remained stationed in Belgium, Britain, Germany, Greece, Italy, the Netherlands and Turkey", the report stated.

The first overseas movement of US nuclear components was in 1951 when President Harry Truman authorised the transfer of nuclear capsules to Guam after the Chinese force launched a major offensive in Korea.

The report has further revealed that during the peak years in the early 70s, the US has more than 7,000 nuclear weapons in NATO countries in Europe and over 2000 on land in the Pacific.

A variety of naval vessels including air craft carriers, cruisers, destroyers, frigates and submarines routinely carried another 3000 nuclear weapons, it stated. The Bulletin's report states that altogether the US deployed 38 types of nuclear weapons abroad. Twenty-one US nuclear weapon systems were based in Germany which were first installed in 1955. "Guam hosted 20 types and the Japanese island of Okinawa, while under US occupation, hosted 19", it states.





**Ques : What makes stainless steel stainless?**

**Ans.** Metals such as chromium react extremely quickly with oxygen in the air. Because the size of atomic chromium and its oxide are similar, they sit comfortably next to each other and the oxide forms a stable layer only a few atom thick over the whole surface. If the oxide layer is broken or the metal is cut or scratched, more oxide rapidly forms and covers the exposed surface. This prevents any further corrosion, which is why chromium retains its shine.

If a high proportion of chromium is added to steel to make stainless steel, much the same effect is produced. The oxide layer prevents only oxidising reactions, so attack from other forms of corrosive is still possible. Though limited, which means that stainless steel is not truly stainless.

However, for the purposes of general household use it appears, so retaining its sheen long after other metals have become dull. The reason that just occurs so readily on iron is that atomic iron is much smaller than its oxide, so that they can not pack together neatly. Instead the oxide sits loosely on the surface of the metal. This is why rust flakes off rather than forming a stable protective layer.

**Ques : Why do we mix oil with petrol for two wheelers?**

**Ans.** Oil is mixed with petrol, in scooters, for lubrication of engine parts. This lubrication oil reduces friction between moving parts such as main bearings, connecting rod bearings, wrist pins, camshaft bearings and cams, engine cylinder walls, valves and timing drive. It also reduces the wear and also serves as a cooling medium for removing the heat inside the engine.

Lubrication is necessary not only for two-wheelers but also for four wheelers. In four wheelers a separate lubrication unit comprising of oil tank and oil pump is provided, owing to its complex engine system as compared to that of two-wheelers. The oil is filled up in the tank periodically, and from there it is pumped to the engine parts.

It is advisable to have separate lubrication system as in two wheelers and motorbikes instead of mixing the oil with petrol system (as in scooters). The major advantages of the former system are:

- As the quantity of oil is regulated by the pump, the problem of smoky emission is avoided and

- The 'deposit of carbon on the spark plug' could be eliminated.

**Ques : Why is a circle divided into 360 degrees?**

**Ans.** The Babylonians of 3000 years ago used the sexagesimal system of numbering, which was based upon a multiplication of 6. Instead of the decimal system, which we now use. They divided the circle for example into  $60 \times 6$  parts—the 360 degrees. Each degree in turn was divided into 60 parts and again divided into 60.

Claudius Ptolemy took this method of division from the Babylonians and called the first division of the degree the parts minute, or a small part. The division of this first small part he called the 'parts minuta secunda' or the second small part. Ptolemy's names became known as minutes and seconds. The Babylonians calculated the number of days in a year as 360. The earth moved through the Zodiac in 360 days as per their estimate and hence the division of the circle into 360 degrees, that is one degree per day.

Time measurement is also based upon the sexagesimal system as there are 60 seconds to a minute, sixty minutes to an hour, 24 hours to a day, 30 days to a month and 12 months to a year and also 12 zodiacal signs in astronomy.

**Ques : How do we measure rainfall?**

**Ans.** Rainfall is measured in terms of the level of height to which water is collected or accumulated on a flat surface through rain. It is usually expressed in millimetres to the nearest whole number of points over the area. There are many instruments for measuring rainfall, the most commonly used in the rain gauge.

Rain gauge consists of a funnel (5"-6" in diameter), a measuring tube (usually one tenth of the funnel in diameter to measure accurately even the trace amounts of rainfall) and the outer cylindrical cover with a base. The rainfall falling into the funnel is directed into the measuring tube which is calibrated accordingly.

The excess water, if any, overflows the tube and is collected within the outer cover. This is measured subsequently. Based on the material by which the parts of a rain gauge is made, it may be fibre glass type or metal type. For continuous recording of rainfall, recording

rain gauge is used where the level of water level is automatically monitored continuously. Recording雨量計 may be with float type recorder or

In float type recorder the vertical movement of the float (with the rise of water level) is recorded by a pen on a chart fixed on a rotating drum; whereas in the weighing type, the weight of the receiver is recorded by an weight balance. The rain gauge must be placed at horizontally (at about 12' height from the ground) at a distance of twice the height of the nearest objects like trees, buildings etc.

**Ques : How proteins are transported in our body?**

**Ans.** An adult human being is made up of approximately 100,000 billion cells. A cell contains many different compartments, organelles, each surrounded by a membrane. The organelles are specialised to carry out different tasks. The cell nucleus, for instance, contains the genetic material [DNA] and thus governs all functions of the cell.

The mitochondria are the "power plants" producing energy needed by the cell, and the endoplasmic reticulum is together with ribosomes, responsible for synthesising proteins.

Every cell contains approximately one billion protein molecules. The different proteins have a large number of important functions. Some constitute the building blocks for constructing the cell while other function as enzymes catalysing thousands of specific chemical reactions. The proteins within a cell are constantly degraded and resynthesised. The number of amino acids—the building blocks making up all proteins—may in a single protein range from about 50 to several thousands, forming long, folded chains.

Thus it was for a long time a puzzle how large proteins could traverse the tightly sealed, lipid-containing, membranes surrounding the organelles. Some decades ago, it was also unknown how newly made proteins were directed to their correct locations in the cell.

**The signal hypothesis :** Proteins which are to be exported out of the cell are synthesised by ribosomes, associated with the endoplasmic reticulum. The genetic information from DNA is transferred via messenger (RNA). This information determines how the amino acids build up the proteins. First a signal peptide amino-acids build up the proteins. First a signal peptide is formed as a part of the protein. With the help of binding proteins, the signal peptide directs the ribosome to a channel in the endoplasmic reticulum. The growing protein chain penetrates the channel, the signal peptide is cleaved, and the completed protein is released into the lumen of the endoplasmic reticulum. The protein is subsequently transported out of the cell.

# TO THE POINT

## CURRENT

### POLITY

- ↳ Persons who followed Pakistani instruction in Kargil for the first time are — Morup Tsoring and his brother
- ↳ Pakistani Navy Chief who resigned recently is — Admiral Fasih Bukhari
- ↳ Recently Comprehensive Test Ban Treaty Review meeting was held at — Vienna
- ↳ Pakistan Army Chief Gen. Pervez was born in — Delhi
- ↳ Recently Russia launched air raid over — Chechnya
- ↳ The capital of Chechnya is — Grozny
- ↳ The new Chief Minister of Karnataka is — S.M. Krishna
- ↳ The newly-elected Vice-President of Indonesia is — Megawati Sukarnoputri
- ↳ The First elected President of Indonesia is — Abdurrahman Wahid
- ↳ Recently newly-elected Congress Government in Karnataka declared Rs 3,000 crore package for — Bellary district
- ↳ Additional treaty to the existing Convention on Elimination of all Forms of Discrimination against Women has been adopted by the — U.N. General Assembly
- ↳ Recently Hereditary Peers System has been abolished in England. Hereditary Peers were the members of — House of Lords
- ↳ In which of the following states (two districts) Jats' are going to acquire OBC status? — Rajasthan
- ↳ Sacked Pak-PM Nawaz Sharif's son sought the help of Mr Vajpayee for his father and his family. The name of Mr Sharif's son is — Hasan Sharif

### ECONOMY

- ↳ Interval fund VGS 1000 is launched by the — Unit Trust of India
- ↳ The day on which Mumbai Stock Exchange Sensitive Index crossed 5000 mark is — 8th October, 1999
- ↳ The Verma Committee report was relating to — three weak nationalised banks
- ↳ According to UNFPA World's population crossed 6 billion on — 12th October
- ↳ The National Small Industries Corporation Ltd (NSIC) is organising 8th Techmart India'99 fair at — New Delhi

### PERSONS IN NEWS

- ↳ The man who is known as "Father of the Konkan Railway" is — Late Arjun Walawalkar
- ↳ Recently Julius Nyerere passed away. He was the President of — Tanzania
- ↳ The first Asian born minister in UK (Britain) is — Keith Vag
- ↳ The Deputy Speaker of the 13th Lok Sabha is — P.M. Sayeed
- ↳ Pope John Paul II was very much in news recently as he is likely to — Visit India (from Nov.5)

- NOTICE POINT**
- ↳ Quattroochi (Italian) and Win Chaddha were in news recently as they are chargedheeted by the CBI in — **Borsa Payoff Case**.
  - ↳ Vivek Pandit and Vidya Seta Pandit were in news recently as they got — **1999 International Anti-Slavery Awards**.

## PLACES IN NEWS

- ↳ Recently Ganjam district was hard-hit by cyclone. Ganjam district is in — **Orissa**

## SPORTS

- ↳ This year Best Cricketer of the World Cup award for India goes to — **Rahul Dravid**
- ↳ The recently-held Sri Lanka-Australia Test series was won by — **Sri Lanka**
- ↳ The country which stood first in the eighth South Asian Federation Games is — **India**
- ↳ SAF Games was held at — **Kathmandu (Nepal)**
- ↳ The number of gold won by Jaspal Rana in the SAF Games is — **8**
- ↳ 7 gold medals winning woman athlete in the 8th SAF Games is — **Nisha Millet**
- ↳ The new Coach of Pakistan Cricket team is — **Richard Pybus**

## HONOURS & AWARDS

- ↳ The magazine which has been adjudged as the best non-commercial Publication in Hindi by Hindi Academy is — **Uttari Udan**.
- ↳ This year World Climate Technology Award of Climate Technology Institute goes to — **IREDA**
- ↳ In 1999 Nobel Prize for medicine goes to — **Gaunter Blobel**
- ↳ This year medical aid charity, **Doctors Sans Frontières (Doctors without borders)**, won the — **Nobel Peace Prize**.
- ↳ In the first National Science Olympiad, the winner of the first prize is — **Siddharth Brahma (WB)**
- ↳ "Achiever of the Millennium" award (1999) goes to — **Romesh Wig**
- ↳ "Right Livelihood Award" (Alternative Nobel Prize), 1999 was given to — **D. Hermann Scheer**
- ↳ The recipient of Indira Gandhi Award for National Integration for the year 1998 is — **Dr. Shankar Dayal Sharma**
- ↳ The winner of 1999 Nobel Physics Prize is — **Geradus T Hooft and Martinus Veltman**
- ↳ Nobel Prize for Chemistry (1999) went to — **Ahmed I Zewail**
- ↳ This year Dada Saheb Phalke award is given to — **B.R. Chopra**
- ↳ 1999 Nobel Prize for Economics goes to — **Robert Mundell**
- ↳ Crossword Award is meant for — **Indian Books**
- ↳ The Booker Prize for 1999 went to — **J.M. Coetzee(S.Africa)**
- ↳ Coetzee got the prize for the — **second time**

## SCIENCE & TECHNOLOGY

- ↳ Atovaquone is a new medicine which is used to cure — **Malaria**
- ↳ The Government has put a ban on using recycled plastic carry bags and containers for — **Packaging and supplying food stuff**
- ↳ In which of the following countries the number of AIDS patients is the highest — **India**

## MISCELLANEOUS

- ↳ The stamp series "India, the Natural Heritage" is being issued by — the Department of posts
- ↳ National Cultural Organisation conducted Tansen Festival was held recently at — New Delhi
- ↳ "An Equal Music" is a fiction written by — Vikram Seth
- ↳ Kavab Utsev (Kavab festival) was held recently at — the city of Nawab (Lucknow)
- ↳ The Government is likely to bring a bill to make rape an offence punishable by — death sentence

## BASIC

## GENERAL SCIENCE

- ↳ The reverberation of Sound in a hall results due to — reflection
- ↳ An astronaut in an earth satellite will observe sky as — black
- ↳ A liquid rises in a capillary tube when the angle of contact is — an actual angle.
- ↳ The hydraulic brakes used in automobiles is a direct application of — Pascal's Law
- ↳ A periscope works by the principle of — Reflection and Refraction
- ↳ The amount of actual water vapour per unit volume of air is known as its — Absolute humidity
- ↳ A red object, when seen through a thick blue glass, appears — Black
- ↳ When an object is placed between two parallel mirrors, the number of images formed will be — infinite
- ↳ If two bodies are completely covered with water, they have — same density
- ↳ We can not see during a fog because of — Scattering of Light
- ↳ The science of cryogenics deals with — Low temperatures
- ↳ In a reactor, cadmium rods are used for — absorbing neutrons
- ↳ The term "Match" is used to measure speed of — Aeroplanes
- ↳ Earthquake is measured using — Seismograph
- ↳ The difference between musical sound and noise is due to — Pitch
- ↳ The temperature at which the readings of Centigrade and Fahrenheit thermometers are the same is — 42
- ↳ The atmospheric layer which reflects radio waves is called — Ionosphere
- ↳ When a body is taken from the earth to the Moon — Its Weight decreases
- ↳ For a given velocity of projection, the maximum range of a projectile can be achieved if the angle of projection is — 45°
- ↳ Atom bomb is based on — nuclear fission
- ↳ The Sun remains visible for sometime after it actually sets below the horizon. This happens due to — atmosphere refraction
- ↳ An air bubble in water shines because of the phenomenon of — Total internal reflection
- ↳ To keep correct time, modern watches are fitted with a balance wheel made of — Invar
- ↳ If a pendulum clock be taken from the equator to poles, it will — give the same time
- ↳ The flying of birds is a consequence of Newton's — Third Law of Motion
- ↳ When milk in churned cream gets separated due to — Centrifugal force
- ↳ Production of beats is a result of the phenomenon of — Interference
- ↳ Alternating current is converted to direct current by — Rectifier

- The internal resistance of which of the following instruments is the highest — Voltmeter
- Sound travels fastest in — Steel
- The nature of light waves is similar to — Gamma rays
- Sound exhibits all other properties of waves except — Polarisation
- The ice ball floats in water tank. When the ice melts its water level. — Does not change
- The end of a knife is made pointed to have — more pressure
- A cricketer lowers his hand while catching the ball. This saves him from injury because of — conservation of momentum
- A skid mark in a fit-and-run accident primarily helps in determining the — lying on the ground
- A person presses the earth least when he is — lying on the ground
- Water stored in a dam exerts pressure. — In all directions
- On earth a moving body ordinarily comes to rest by itself because of the — forces of friction
- Which ball fall down faster in a vacuum- a feather, a wooden ball or a steel ball — All
- In an electric kettle water becomes hot by — Convection
- Tea will cool most easily in a — metal cup
- When you rub together two blocks of ice the immediate effect will be that — they melt faster
- When common salt is mixed with ice, the freezing point. — Is lowered
- When white light is passed through a glass prism the colour which is refracted most is — blue
- The three primary colours are — blue, green and red
- Television signals can not be received ordinarily beyond a particular distance due to — Curvature of the earth
- Oil or soap film when seen in day light appears coloured because of — Interference
- The comic mirrors seen in amusement parks have reflecting surfaces that are — Irregularly curved
- The unit of intensity of illumination is — Foot candle
- The speed of sound will be highest in — humid air at 30°
- A woman's voice is shriller than a man's because it has — higher frequency
- The Principle of Dynamo was discovered by — Michael Faraday
- Light year is a unit of — distance
- The 'Sea of Tranquility' and 'Ocean of Storms' are on — The Moon
- The atmospheric layer where the communication satellites are located is — Ionosphere

## **INDIAN POLITY**

- The System of Dyarchy was introduced by the British in India under the — Government of India Act 1919
- The Act which provides an element of election in the Central Legislative Council is— Indian Councils Act, 1909
- The Act which divides the subjects of administration into two categories-Central and provincial is — Govt. of India Act, 1919
- The Constitution of India came into force on — January 26, 1950
- To produce the Constitution the Constituent Assembly took — 2 years, 11 months and 17 days
- The Constituent Assembly met for the first time — December 9, 1946
- The structure of the Indian Constitution is — Federal in form and unitary in spirit
- Indian Constitution envisages — A bicameral system
- The number of Schedules in the Indian Constitution is — 10

- ↳ India has been described by the Constitution as — A union of states
- ↳ In a Parliamentary System the executive is responsible — To the Legislature
- ↳ The Greatest impact on the Constitution of India was left by — The Government of India Act, 1935
- ↳ The chief source of political power in India is — The People
- ↳ Sikkim became a new State in the Union by the 36th Amendment Act in — 1975
- ↳ The territorial extent of Indian States and Union Territories are prescribed in the — First Schedule
- ↳ The Constitution of India has provided for — Single citizenship
- ↳ Fundamental Rights are enshrined in the Constitution in — Part III
- ↳ The institution which has been empowered to suspend the operation of Fundamental Rights is — President
- ↳ The Fundamental Right which has been deleted from our Constitution through a Constitutional Amendment is — Right to Strike
- ↳ On whom does the constitution confer responsibility for enforcement of Fundamental Rights — Supreme Court and High Courts
- ↳ The Fundamental Right which can not be suspended even during an emergency Under Article 357 of the Constitution is — Right to Life
- ↳ The Right which has been described by B.R. Ambedkar as the 'heart and soul of the Constitution' is — Right to Constitutional Remedies
- ↳ Reasonable restrictions on the rights of Indian citizens can be imposed by — The Parliament
- ↳ The Articles in part III of the Constitution which emphasise its secular character are — Articles 25 to 28

## INDIAN HISTORY

- ↳ Itsing, a Chinese traveller visited India during the — 7th Century AD
- ↳ The total number of Purans are — 18
- ↳ Harisena was the poet-laureate of — Samudragupta
- ↳ The Sangam literature gives us useful information about the history of South India during the reign of — Cholas, Pandavas & Cheras
- ↳ The earliest inscriptions on stone were in — Prakrit
- ↳ The first metal to be used by man is — Copper
- ↳ The first thing that primitive man learnt was — to make fire
- ↳ Pottery first appeared in — Neolithic age
- ↳ The first animal tamed by Neolithic people was — Dog
- ↳ The paleolithic men in India are also known as — Quartzite men
- ↳ Tools made of flakes first appeared in — Middle Stone Age
- ↳ — 4000-3000 B.C.
- ↳ Chalcolithic Age dates back to — Great Granary
- ↳ The biggest building at Mohenjodaro was the — Lothal
- ↳ Name the Indus City which had houses with entrances on main street — Bahrain
- ↳ The entry port for trade between the Indus trading centres and Mesopotamia was — Theocratic -unitary
- ↳ The polity of the Indus Valley people was — Forces of Nature
- ↳ The Indus religion did not include the worship of — Six
- ↳ The number of granaries in Harappa was — Humpless bull or Unicorn bull
- ↳ In most of the Indus Seals, there is representation of

- ↳ In the Bronze Age Civilisations the civilization which covered the largest area was — China
- ↳ The distinguishing features of the Harappan Civilization from other contemporary civilizations of the world was — Town Planning, drainage and sanitation
- ↳ The Yogi of the Harappan seals wearing a three-horned cap and surrounded by animals has been identified with — Pasupati Shiva
- ↳ The Veda which was the earliest composition was — Rigveda
- ↳ In the Vedic period the people called pani, were — Those who controlled trade
- ↳ The famous vedic saying "War begins in the minds of men" is stated in the — Atharvaveda
- ↳ Among the various units of the tribal kingdom [rashttra] of the vedic society, which one of the following was the basic unit. — Kula
- ↳ The Rig Vedic God who was believed to be the upholder of the "Rta" or Cosmic order — Varuna
- ↳ The varna which was comprised mainly by the common mass in the Vedic period — Vaishyas
- ↳ The earliest tribal assembly was — Sabha
- ↳ The term "Gotra" occurs for the first time in — Atharva Veda
- ↳ The part of the vedic literature narrates about the passage of human soul from life to life is — Upanishads
- ↳ The sage who is believed to have Aryansed South India was — Agastya
- ↳ The four-fold division of society is expressly mentioned in — Purus-Sukta of Rigveda
- ↳ The most accepted date of the composition of the Rig Veda is — 1500 B.C. to 1000 B.C.
- ↳ The Gayatri Mantra is dedicated to — Savitri
- ↳ The place which is said to be the birth place of Buddhism is — Sarnath
- ↳ The first teachers of the Buddha, after his great renunciation were — Alara and Udraka
- ↳ Mahayanism formally came into existence during the regions of — Kanishka
- ↳ The number of stories included in the Jatakas is — 500
- ↳ The first Buddhist nun was — Gautami
- ↳ The first Trithankara according to Jain tradition was — Rishaba
- ↳ The place where Mahavir's death took place was — Pava
- ↳ The real founder of Jainism was — Vardhaman Mahavira
- ↳ The earliest known follower of Bhagavatism was — Hellodorus
- ↳ The traces of Bhagavata cult is not found in the — Brahmanas
- ↳ The place where Buddha attained enlightenment was — Bodh Gaya

## **INDIAN GEOGRAPHY**

- ↳ India is the biggest producer of — Oilseeds
- ↳ The richest soil is the — Alluvial soil
- ↳ The potential oil sources in India are in — Tamil Nadu, Assam, Gujarat
- ↳ The river on which Pong Dam has been constructed is — Beas
- ↳ The industry which is most developed in Bihar is — Steel
- ↳ Jog Falls is associated with river — Sharavati
- ↳ The State which leads in the production of minerals in terms of value is — Madhya Pradesh
- ↳ The type of soil which retains maximum amount of water is — Clayey
- ↳ The river which is the east flowing river of peninsular India is — Mahanadi

- ↳ The line demarcating the boundary between India and China is the — Mac Mahon Line
- ↳ The maximum percentage of tribal population in India consists of — Santhals
- ↳ The biggest oil refinery in India is located in — Koyali
- ↳ The Gondwana coal fields are found in — Madhya Pradesh
- ↳ The oldest mountain ranges in India is — Aravalli
- ↳ The Black Pagoda is situated in — Konark
- ↳ The South-West Monsoons end in India in — November
- ↳ The direction of the Monsoons of the Arabian Sea branch is from — Southern tip to West
- ↳ The biggest producer of spices in India is — Kerala
- ↳ The Hirakud Dam is located in — Uttar Pradesh
- ↳ From land-mass point of view, India's position in the world is — Seventh
- ↳ The place in Punjab which is famous for hosiery industry is — Ludhiana
- ↳ The 'Khetri Project' in Rajasthan is famous for the production of — Copper
- ↳ Amarnath is located in — Jammu & Kashmir
- ↳ The 'Khetri Project' in Rajasthan is for the production of — Copper
- ↳ Mt. Abu in Rajasthan is famous for — Dilwara Temples
- ↳ The Ghana Bird Sanctuary is located in — Rajasthan
- ↳ The Amul Cooperative Dairy is located in — Anand
- ↳ The biggest city of India is — Mumbai
- ↳ The place in India which is famous for the 'Rock Garden' is — Chandigarh
- ↳ Chandigarh is located at the foothill of the — Shivalik Hills
- ↳ Nepanagar in Madhya Pradesh is famous for — Newsprint
- ↳ Ferozabad is famous for — Glass bangles
- ↳ Which hill-tract in India receives the maximum rain fall — Khasi hills
- ↳ The biggest port in India is — Mumbai
- ↳ The important feature of the Himalayan rivers is — They have perennial flow of water
- ↳ The place in India where irrigation is done by tanks is — Karnataka, Tamil Nadu & Andhra Pradesh
- ↳ The Hirakud project on Mahanadi is located in the State of — Orissa
- ↳ The River on which Bhakra Nangal project has been built is — Sutlej
- ↳ Highest degree of concentration of mineral deposits found in — North-Eastern Zone
- ↳ Rich in Iron ore especially in magnetite and the only zone in the country that produces gold is — Southern Zone
- ↳ The first Green Revolution was launched in — 1967-68
- ↳ The Second Green Revolution was launched in — 1983-84
- ↳ The State which is known as the Granary of India is — Punjab
- ↳ In collaboration with the World Bank, Operation Flood I was launched in — 1970
- ↳ Operation Flood II was launched in — 1985
- ↳ The new railway coach manufacturing factory in India is situated in — Kapurthala
- ↳ Bhedra Sanctuary is situated in — Karnataka
- ↳ Achanakmar Sanctuary is situated in — Madhya Pradesh

# ECONOMIC SCENARIO



## Latest GDP Statistics

The Central Statistical Organisation (CSO) has released the estimated data concerning the gross domestic product (GDP) of the country. Economic growth appears to be heading for a revival this year, judging by the encouraging rise of 6.5% of GDP in the first quarter (April-June) of the 1999-2000 fiscal. This compares favourably with the 3.6% growth recorded over the same period in 1998-99. This is bound to fuel expectation that the economy will rebound after two years of relatively sluggish growth following in 7.8% increase achieved in 1996-97. The bright outlook for the first quarter is largely due to higher growth in the manufacturing and agriculture sectors as well as the construction sector and the segment comprising trade, hotels, transport and communications. Mining and quarrying, on the other hand, recorded a decline of 2%, lower than the fall of 0.6% recorded last year. The growth rate has also eased in the case of electricity generation from 9.7 to 5.2% during the comparative period. Other facts of CSO statistics are given below:

- ◆ The growth in the agriculture sector is significant having risen from 2.1 to 2.8% this year.
- ◆ Manufacturing sector has also increased from 5.2 to 6.2%.
- ◆ Construction sector has gone up from 4.2 to 6.7% during the comparative period of the previous years.
- ◆ There has been a big jump in the trade, hotel, transport and communications category with

# ECONOMY SECTION

the growth rate having increased in the first quarter from 1.1 last year to 6.2% this year.

- ◆ Services in general have similarly recorded a substantial improvement with financial sector growth going up from 8.4 to 7.8% and community, social and personal services rising from 6.5 to 7.8 per cent.
- ◆ Another important indicator such as production of commercial vehicles has risen by 30.4% while cargo handled at major ports has gone up by 10.1%.
- ◆ Postal and telecommunication revenue has risen by 8%.
- ◆ Aggregate bank deposits have risen by 18%, while bank credits have gone up by 15% only.
- ◆ Revenue expenditure of the Central Government has gone up by 21% during the first quarter of the current financial year in comparison to the same period of the last fiscal.

of India from 'Baa2 Stable' to 'Baa Positive' on foreign and domestic currency debt. Moody's said the country's balance of payment (BoP) was 'resilient' through the Asian and Russian Currency crises, as well as through the international sanctions that were imposed following India's May, 1998 nuclear tests. The rating agency added that the external debt maturity structure had improved and foreign reserves strengthened in recent years, reducing the country's vulnerability to external shocks.

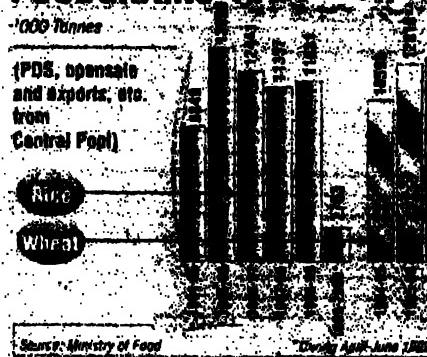
Moody's noted "a stronger consensus has emerged across the political spectrum concerning the necessity for structural reform, although frequent political upheavals since 1996 have interrupted legislative advances and policy implementation". The agency has said that the new Government that emerges from the latest election is likely to stay in office longer than its recent predecessors even though its margin of victory appeared to be quite small. A longer-lasting Government would be able to undertake a more aggressive economic restructuring during its term of office, Moody's further added.

## Prices of 3 Bulk Drugs Raised

The National Pharmaceutical Pricing Authority (NPPA) on October 7, 1999 revised the prices of three bulk drugs — prednisolone, prednisolone acetate and hydroxy ethyl theophylline — with effect from October 4, 1999.

While the price of prednisolone has been raised from Rs. 44,962 to Rs. 59,000 a kg, that of prednisolone acetate has been raised from Rs. 51,035 to Rs. 62,000 a kg. The price of

## DEFTAKE OF FOODGRAINS



## Moody's Raises Credit Rating of India

The renowned international credit rating company — Moody's Investors Service — raised the credit rating of India on October 7, 1999. The company raised the sovereign rating

hydrogen sulphide pipeline has been raised from Rs. 675 to Rs. 850 a kg.

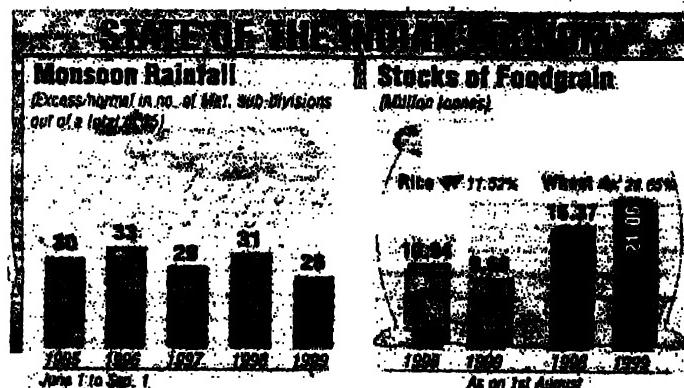
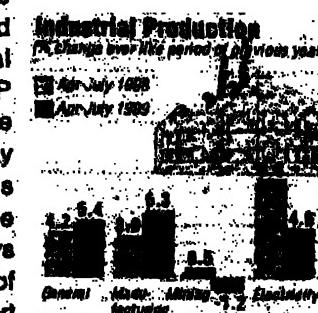
### HUDCO: Tie-up with USAID

The Housing and Urban Development Corporation of India (HUDCO) has signed an agreement with the US Agency for International Development (USAID) to raise \$ 10 million from the Indian Capital Market for lending for urban infrastructure projects in Nagpur and Surat. It is the first such agreement with USAID after the US imposed sanctions against India in wake of the nuclear tests augmented in May, 1998. The agreement was signed on September 22, 1999 in Washington. The present agreement is a follow-up to a memorandum of understanding (MOU) signed in 1995 for the development of debt market for municipal financing between the Indian Government and the US.

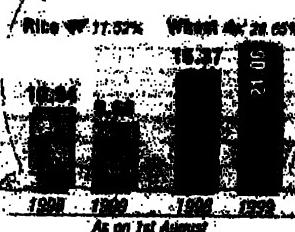
The money raised through this process will be used in projects relating to water supply and energy recovery from waste in Nagpur and setting up of two sewerage treatment plants in Surat.

Both the countries to mutually come to a settlement on the exact time-frame for removal of the restrictions. India had agreed to remove the curbs by March 31, 2003 and signed bilateral agreements with six countries, including the European Union. However, the US did not agree to India's offer and opted to drag it to the WTO dispute settlement forum.

The DSP, while asking India to remove the curbs, said it could, however, be given over 15 months time to dismantle the curbs. India had gone in for appeal against the DSP ruling but the appellate body upheld the panel's ruling. India and the US will have 60 days time from the date of adoption of the report to come to a mutual understanding on the time-frame for removal of the curbs. If they fail to reach any understanding, then the issue would go for arbitration again.



### Stocks of Foodgrain (Million tonnes)



### A WTO Decision Against India

The World Trade Organisation (WTO) adopted a Dispute Settlement Panel (DSP) ruling on September 22, asking India to dismantle its Quantitative Restrictions (QRs) on imports, paving way for negotiations between India and US to decide on a time-frame to remove import curbs.

Acting on a complaint from the US, the DSP had ruled that India's import curbs, maintained on the grounds of keeping its trade deficit under check, were against WTO rules and asked

for phasing out the former's import curbs. The US is no longer interested in providing more than 15 months to India to phase-out import curbs on over 2000 agricultural, textile and industrial products.

### SEBI Tightens IPO Norms

The Securities and Exchange Board of India (SEBI) on October 8, 1999 made it mandatory for Information technology (IT) companies proposing to tap the primary market to furnish a three-year track record of

profitability out of their IT activities. According to the SEBI Chairman Mr. D.R. Mehta, this would restrict initial public offering (IPO) by companies that have changed their names to reflect activities in the sector or recently entered the IT business.

A company that does not fulfill the above given criteria, can access the market provided the project is appraised and financed upto 10% by a bank or financial institution, as per the new rules set by the SEBI.

### Better Performance by Family-Run Firms

An analysis by an International Consultant Company, BOOZ Allen and Hamilton (BAH) has found that family run companies in India with clear focus have created more wealth and better performers amongst them have excelled even over the multinational companies (MNCs). Making a presentation on this subject at the Federation of Indian Chambers of Commerce (FICCI) on October 8, 1999, Dr. Shumeet Banerji, Vice President of BAH, said in the Indian context, family run businesses were very relevant and the dynamism shown by these entities were similar to that of comparable set-up the world over.

Based on the analysis made on a sample of 350 companies about their average market capitalisation over the period 1998 to 1999. Pointing out that the business environment was changing with deregulation, globalisation, increased competition and maturing market infrastructure, the paper said now success factors hinged on focus, upgradation of skills and capabilities.

### THE LARGEST MAKER OF HEAVY VEHICLES

Volvo AB, the world's second largest maker of heavy trucks, and Mitsubishi Motors Corp., Japan's fourth-largest automaker have agreed to take 5% stakes in each other and form an alliance that would be the world's largest maker of trucks and buses. The companies said their combined production of trucks and buses in 1998 was 2,53,000 well ahead of the 2,20,000 units produced by rival Daimler Chrysler AG in the same year. Daimler-Benz AG of Germany last year bought Chrysler Corp. of USA, creating the world's fifth-largest automaker and sparking other companies to merge and form alliances.

### Export Growth Rate at 10.2%

The Union Ministry of Commerce released the foreign trade data for the first five months of the current financial year (1999-2000). The data were released on October 1, 1999. Exports in August have jumped to double digit levels with a 10.2% spurt in growth. Imports have also risen sharply by 19.3% during the month largely reflecting the high cost of oil



imports. As a result, the trade gap has widened to \$ 3.96 billion, slightly more than it was last year at the same time (\$ 3.9 billion).

The sudden increase in exports augurs well for the remainder of the current fiscal which has so far recorded a modest growth of only 4.6% from April to August. Releasing the

data, the Ministry has said that the onset of double-digit growth reflects recovery in several key export sectors and pick-up in demand from major markets like the US. The global trade scenario has improved giving some buoyancy to exports from India as well. Major markets have recorded higher demand over the last few months.

Imports have also been rising at a moderate rate of 3.94% during the first five months of the current fiscal. The bulk of increase has been accounted for by oil imports owing to the recent hardening of prices in the international markets. Prices of crude oil and petroleum products virtually skyrocketed from around \$ 9-10 a barrel in May to \$ 21-22 in July. With the value of purchases having risen sharply, the cost of oil imports during April-August is valued at \$ 3.59 billion which is 56.45% higher than purchases estimated to cost \$ 2.3 billion last year. On the other hand, non-oil imports have actually fallen by 4.07% from \$ 15.08 billion to \$ 14.4 billion in April-August during the comparative years.

### Increase in Car Sales Continues

According to the relevant data released by major car companies in October, car sales continued to increase in September for the sixth successive month. Sales data of these companies show that they have been able to increase their sales by 10-13 per cent during

the first six months (April-September) of the current financial year. This has indicated good future for the automobile industry of the country.

It is known that as India opened up its automobile industry for foreign investors after liberalisation, major world players entered the Indian car segment. The process got accelerated when the South Korean giant 'Hyundai'

came in for a 100% foreign investment in the early 1996-97. Since then almost every world player has entered the Indian car market, barring few. Surveys and experts had forecasted a very good market here in India. But the real picture got distorted when these companies were unable to sell their products in the market. The automobile sector has gone in for heavy investments by them and there was a case of stock-piling of the product. Though, this problem was very much related to the South-East Asian Crisis as well as a slump in the economic activities in the economy besides a slowdown in the world economy, the automobile sector was in a real fix. Some of the Indian automobile giants now feel it uncomfortable to continue with their foreign partners in their joint sectors. The financial years 1997-98 and 1998-99 were showing clear symptoms of an industrial slowdown.

But the year 1999-2000 came with a glimmer of hope and many car companies felt their sales picking-up. Thus, the surveys and experts' analyses now look more practical. Naturally, the Maruti Udyog Ltd. has been the leader. But other companies such as Hyundai, Daewoo and Mitsubishi including Telco and others have also seen their sales increasing during the first half of the current fiscal. The automobile industry is all set to say good bye to the industrial slackness, by now.

### Eyes Set on Manufacturing Sector

The latest data of the Central Statistical Organisation (CSO), released on October 12, have gone in to paint a rosy picture of the industrial scenario in the country. The industrial growth rate of India reached to 6% in the first five months of the current financial year. The rate has been 6.3% in August, 1999. But the full picture indicates that the acceleration in the industrial activities has been provided by the single sector manufacturing.

The manufacturing sector has grown with a rate of 6.7% during the five months of 1999-2000. It is known that the growth rate was only 4.2% last

## ECONOMY SECTION

year during the same period. This shows an increase of 33% (app.) in the growth rate of the manufacturing sector during the comparative period. As we know that the sector has 79.36% weight in the revised Index of Industrial Production (IIP), it affects the industrial growth rate in a big way. And this has happened in the Indian case.

The importance of manufacturing sector needs no arguments. We have seen it playing havoc to Indian industry since 1997-98. Basically, the year showed a decline in the demand of the manufacturing products. This happened due to two reasons—

(i) Firstly, the domestic consumers were no more interested in purchasing. They were avoiding their present purchases and pushing them for tomorrow as inflation was showing the tendencies to fall. Thus, the demand of manufactured products went down severely.

(ii) Preceding years had been very good years for Indian exports as it showed growth rates between 17-21 per cents for the last three consecutive years. But due to various reasons (South East Asian Crisis, fall in the world demand, etc.) this year had a dismal performance on the export front when export growth rate was only 2.6% (in dollar terms). Export downfall shattered the demand of the manufacturing sector.

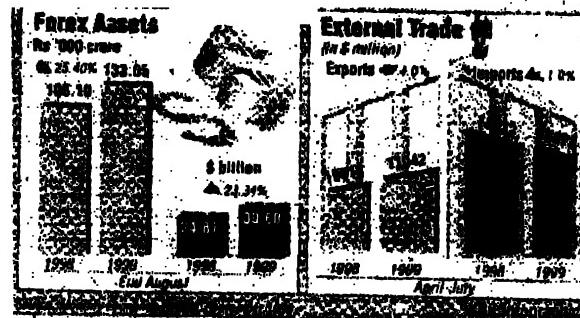
But during the current financial year consumer products are very much in the demand in domestic as well as in international markets. Though, India has just entered the double-digit export-growth rate (10.2% in September), we hope a possible revival in it by the year end. Again domestic consumers have started their purchasing. But data show that till now we are almost fully dependent upon the manufacturing sector for our industrial revival since electricity and mining are proving bad performers.

However, the Industry and the Government are forecasting a possible

turnaround in the industrial growth; all eyes are set on the manufacturing sector.

### Bad Performance by Electricity

Energy is called the lifeline of economy. And electricity has no exception to this rule. Again, electricity is an important constituent of our Index of Industrial Production (IIP) which carries 10.47% weight in it. Other two constituents are manufacturing and mining. Thus, a bad performance by electricity affects our industrial growth rate, directly. But this sector affects our



industrial development and growth indirectly, too. India has been a country where industries became sick due to lack of power. Thus, we can adjudge the importance and the scenario of power in India. Latest Government figures say that electricity production grew with a rate of 8.1% during the first five months of the current financial year (1999-2000). It is important to note that the sector had a better growth rate (8.7%) last year, during the same period. It means the sector has basically declined during the comparative period.

Union Governments have gone for several policy changes concerning power sector in the era of liberalisation. But the impetus in private investment has not been seen. In the 1997-98 fiscal the Government went on to open the transmission and distribution sectors for private sector besides power generation. Since then many States have attempted restructuring of their state electricity boards (SEBs), but things have not gone for a great change. Orissa took the lead when it announced the privatisation of its electricity boards—with a clause that

the personnel can not be entrenched after the private sector takeover. The global tender for the electricity board has not been invited by the State, yet. But this was a great beginning by a State.

We need to raise the tariff of the electricity bill so that the distribution sector could become a profitable business. If we think to make our SEBs profitable bodies we need to do following things:

- (i) a revision in the electricity tariff,
- (ii) modernisation and technological upgradation of our obsolete transmission system
- (iii) cut down our transmission and distribution (T&D) losses (21% at present) to international level (of 10%, at present).
- (iv) stop pilferage of electricity and wrong billings.

Basically, unless the sector looks profitable, the private sector would not show the real interest in the sector. Purchasing electricity at higher prices from private producers and selling them at subsidised prices to the consumers show a tight fiscal situation of the Government in future. This deters a private (foreign) investor to come and invest in this sector. Every foreign investor wants the economy to be in healthy shape so that its investments garners optimum profits from it. All such things should be kept in mind.

### Heading for Industrial Revival

The upturn in industrial production continued in August this year, data for which were released by the Central Statistical Organisation (CSO) on October 12, 1999. According to these data, the Index of Industrial Production (IIP) registered a growth of 6.3% in August against 4.4% registered in same month last year. With this, the overall IIP for April-August 1999 has risen by 6%, compared to 4.2% increase registered in the same months of last year. The April-July

## ECONOMIC SECTION

Index has risen by 5.4% in the current fiscal.

In reaching 6% growth in the five-month period, the mining sector's contribution was negative at 0.3% against a positive 0.5% in April-August 1998. Electricity was up 6.1%



against 6.7% in the comparative period. However, manufacturing sector registered a 6.7% growth up from 4.2% during the comparative period.

The CSO statistics reveal that 12 of the 17 two-digit industry groups registered positive growth in August this year compared with August last year. Machinery and equipment other than transport equipment registered the highest growth of 20%, followed by 17.6% for paper and paper products and printing, publishing and allied industries. Non-metallic mineral products registered a growth of 15.9%. On the other hand, other manufacturing industries registered negative trends of 14.1%, followed by a decline of 6.9% in the case of metal products and parts, except machinery and equipment and a decline of 4.8% in case of rubber, plastic, petroleum and coal products.

Meanwhile, the industry is in upbeat mood and expecting a turnaround in the industrial growth by the end of this financial year. But we must not forget that the revival in the growth rate at present is a result of better performance by the manufacturing

sector. And this can not long last if our power sector remains subdued.

### RBI Norms for Gold Deposit Scheme

The Reserve Bank of India on October 5, 1999 announced detailed guidelines for the Gold Deposit Scheme (GDS). Each bank will, within the framework set out by the RBI guidelines, devise a scheme in accordance with its own assessment of the market. It may be recalled that with a view to mobilising a portion of the privately held stock of gold and putting it to productive use, the Finance Minister had announced the introduction of a GDS in the budget for 1999-2000. Important facts concerning the scheme are as follows:-

- ◆ The scheme seeks to provide depositors the opportunity to earn interest on their idle gold holdings along with the benefits of safety and security of holding gold without any cost. The Union Government since issued various enabling notifications.
- ◆ The scheme will be open for investment by resident Indians. Banks will either issue a pass book or a certificate or bond which will be transferable by endorsement and delivery. Banks will be free to fix their own interest rates on the gold deposit scheme.
- ◆ The scheme will have maturity range from three to seven years with an initial lock in period to be specified by each bank.
- ◆ Gold under the scheme will be accepted in scrap form only. The banks will first subject the tendered gold to preliminary assay by a non-destructive method. After the preliminary assay the depositor will have the

option to withdraw the tender depending upon the results.

The deposit will be repaid in the form of standard gold bar of 0.995 fineness or in rupees equivalent to the price of gold as on the date of maturity at the option of the depositor. The depositor will have to exercise the option at the time of application or once during the tenure of the bond.

- ◆ Rupee loans will be available against collateral of the gold deposits. The scheme will be open-ended and will be available on tap.

To ensure wide reach for the scheme, banks which fulfil these criteria but have limited branch network, may appoint other banks having the necessary infrastructure for collection, storage and transportation of gold as collection agents only.

### World Investment Report of UNCTAD

The United Nations Conference on Trade and Development (UNCTAD) released its "World Investment Report 1999 : FDI and the Challenge of Development" on September 27, 1999. The report has specially covered the Asia and the Asia-Pacific regions including India. Important parts of the report are as follows :-

- ◆ Foreign direct investment (FDI) flows to India fell by almost \$ 1.5 billion in 1998, even as the total volume of flows into the Asia-Pacific region also dipped by 11% in the backdrop of the Asian financial crisis. Bangladesh, in contrast, experienced fast growth in terms of FDI inflows especially in the energy sector.
- ◆ The report lists India as the sixth largest recipient of FDI in Asia with \$ 2.25 billion, down from \$ 3.73 billion in 1997. Pakistan on the other hand, is listed as tenth with an inflow of only \$ 497 million, a sharp drop from \$ 714 million in the previous year.

China remained the single largest FDI recipient in the developing world. Inflows to the country were

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\$ 45.5 billion in 1998, exceeding the previous year's level by \$ 1 billion according to the revised estimates. The country not only accounted for well over half the total FDI flows into the region but was the third largest recipient in the world behind only the US and the UK.

The report estimates total global FDI to have risen by almost 40% to over \$ 640 billion in 1998. But the UNCTAD stresses that to capture the full impact of TNCs (trans-national companies) growth, it is important to note they are now rapidly boosting foreign activities through a variety of non-equity firms as well as building technology networks with partner enterprises.

### World's Biggest Takeover

MCI World Com Inc., on October 5, announced to buy its long-distance telephone rival Sprint Corp. in Stock and assumed debt. The company will incur a total outgo of \$ 129 billion in this process. This will be the world's biggest takeover in the corporate history. Together MCI World Com and Sprint will control about 30% of the \$ 80 billion a year market for US long distance calls, compared with 48% for AT&T.

### Central Banks Save Gold Fall

The European Central Banks' pledge to have limited sales of gold has led prices to shoot up on the International and domestic markets in the last few days. The gold prices in Mumbai rose to Rs. 4,725 from Rs. 4,535 per ten grams in one day on September 29, 1999. It is known that due to the gold sales initiated by the Bank of England, gold prices have been falling in the world markets. There were rumours of many such sales by other banks. The IMF had been also planning the same process. But the recent decision by the banks has reversed the process of falling gold prices:

Eleven European Central Banks (ECBs) and Britain, Switzerland and Sweden had pledged to limit annual sales to 400 tonnes of gold for the next five years which translates into a sale of 2000 tonnes of the yellow metal over the five years period. It was also stated that the Central Banks had agreed not to expand their gold lending and their use of gold futures and options over the

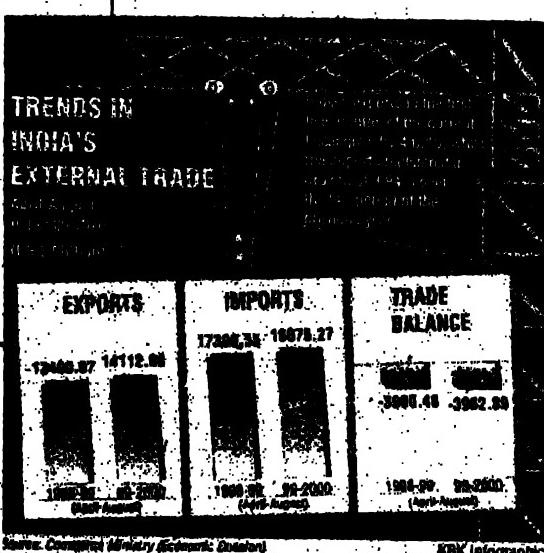
five year period. The rise in the gold prices has also been influenced by the report of IMF that it would sell gold to some central banks and not in the open market as it was scheduled.

The other major holders of gold - the US, the IMF, the Bank of Japan and the Bank for International Settlements — while not part of this agreement are associated with it. The Reserve Bank of Australia several weeks ago stated that it had no intention of selling more gold in the foreseeable future. This brings about 90% of official gold holdings world wide within the scope of a general restriction on sales and lending.

It is to be noted that many gold producing countries had been feeling uncomfortable when Bank of England sold its gold reserves. The situation became so grim that the gold producing countries themselves started bidding for the auction, with a view to sustain the gold prices. But the crisis has been averted for the coming five years, considered that these banks continue with their words.

### MIPL Tie-up With Mitsubishi

The Mahindra Industrial Park Ltd. (MIPL), the country's first private sector industrial park, has roped in Mitsubishi Corporation of Japan for space marketing. The tie-up is the culmination of MIPL's vigorous drive to market the industrial park both in India and abroad. This news was announced on October 15 by the MIPL.



## ECONOMY SECTION

The industrial park is being set up near Chennai on 1,350 acres of land. The present equity participation works out to 40% by Mahindra and Mahindra, 30% by IL & FS (Infrastructure Leasing & Financial Services Ltd.) and 11% by Tamil Nadu Industrial Development Corp. (TIDCO). The total project cost Re.215 crores which will be funded by a mix of equity funds (Rs. 55 crores), debt from banks and institutions (Rs. 60 crores) and internal generation (Rs. 100 crores). MIPL is discussing with a French utility company and a German financial institution for strategic alliance to meet the shortfall of 19% in equity.

### Daimler-Aerospatiale Merger

Overcoming national jealousies and ideological obstacles, Daimler Chrysler AG of Germany and Aerospatiale Matra SA of France agreed on October 14, 1999 to merge their aerospace businesses into a European behemoth with about \$ 22 billion in annual sales. The company to be called the

European Aeronautic, Defence and Space Company, would be the world's third largest aerospace company after the Boeing Company and the Lockheed Martin Corporation. Among other things, it would essentially control Airbus Industries, Boeing's bitter rival in commercial aircraft production, as well as AlranceSpace SA, now the world's biggest commercial rocket-launching company.

### Verma Panel Report

The report of the working group, led by Mr. M.S. Verma, on restructuring of weak public sector banks (PSBs) has drawn up a four-dimensional programme. "In view of the very extensive network and large client base of each of these banks, as also the other attendant negative externalities, closure is considered only the last option", the report released by the Reserve Bank of India on October 4, said. The banks involved are Indian Bank, UCO Bank and United Bank of India. The four

dimensional programme prescribed by the Panel includes—

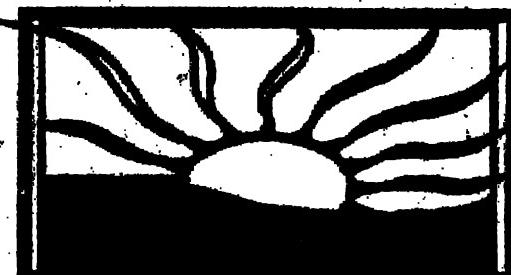
- (i) **Operational restructuring** : This will involve basic changes in the mode of operations, induction of modern technology, resolution of the problem of non-performing assets (NPAs) and drastic reduction in cost of operations.
- (ii) **Organisational restructuring** : This would aim at improved governance of the banks and enhancement in management involvement and efficiency.
- (iii) **Financial restructuring** : This would involve conditional recapitalisation, that is raising the capital adequacy ratio (CAR) to at least one per cent above the minimum required so that the banks can continue with their normal credit business.
- (iv) **Systemic restructuring** : This provides for legal changes and institution building for supporting the restructuring process.

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# "RBI REPORT" ON SERVICES SECTOR

Reserve Bank of India has recently published its 'Annual Report 1998-99'. The report presents significant observations about the services sector in India. The most important is that the services sector—consisting of trade, transport, communication, construction, banking, insurance, public administration, defence and all professional services has come to contribute more than half of the real gross domestic product (GDP). It means that its share in the GDP (51.2 per cent in 1998-99 fiscal) exceeded the combined contribution of the other two sectors—(a) agriculture and allied activities and (b) manufacturing, traditional and modern. Indeed, this is remarkable in an economy of which it is usually claimed that agriculture still constitutes the backbone and that it is one of the emerging industrial powers in Asia. The surge in the contribution of the services sector has generated enough debate among economists, analysts and experts all over the country. Several conclusions have been drawn by them—some optimistic and some pessimistic. Here the article tries to evaluate the contributions and significance of the services sector of the Indian economy. For this the other sectors need to be understood.

## The Conceptual Framework

By the time India was deciding its development model, the world had some well-defined and proved framework for the same. Thus, India decided to follow the philosophy of the mixed economy. The experiences concerning economic development all over the world had grown like a

well-established framework by that time. Almost all of the world economies were agrarian economies in the beginning. Industrial Revolution came with a new idea of economic growth and development. And agrarian economies of the world (many of them, not all of them) were now in a position to be called as industrial or developed economies. The contribution of the primary sector in the GDP fell down and the secondary sector came to establish its contributory importance in the GDP. By the time there had been a moderate starting in the tertiary sector (services sector). In the coming decades services sector started to bulge concerning the matters of contributions in the GDP. A time came when services sector became the most important sector which contributed maximum part of the GDP.

During this major shift from agrarian to industrial and then to service society the number of labour force involved in these sectors also went for a simultaneous shift. Among many industrially developed countries only 2-4 per cent of the population earned its livelihood from the agriculture and allied activities. Their industrial sector created enough employment opportunities at attractive (comparatively) terms and conditions and the population shifted from the primary sector to the secondary sector. Same thing happened when the services sector started to expand. Population again started shifting from the secondary to the services sector. In years to come the services sector not

contributed only the largest part of their GDPs but it became the sector in which the largest number of work force was involved.

Above-given model of economic development had become an established fact by now. Same model was accepted by India, too. We in India always remained eager to see same thing happening in our economy. It started to happen in the same pattern till the whole of 80s. But in the decade which followed, a typically new scenario developed. In India basically, our secondary sector never developed to become the largest contributor in our GDP. And ultimately we have the services sector becoming the largest contributor. Thus, we look as if we are a service society but without a fully-developed secondary sector.

## Past Scenario

Initially, agriculture was the leading sector in India. Till early 1960s, its share in the GDP exceeded the combined contribution of the other two sectors, and it maintained its lead till the early 1980s. By the middle of the decade, however, services took agriculture as the lead sector. The services sector itself maintained a steady increase, its contribution in the GDP going up from less than 30 per cent in 1950-51 to 40 per cent by 1990-91, the share of the primary sector coming down to 32 per cent and the secondary sector being a poor third with 28 per cent. And in less than a decade, the services sector's share reached the 50-plus per cent mark while the shares of both the other sectors were reduced further. The RBI Annual Report goes

on to analyse significant things concerning the metamorphosis.

#### **Analyses of the Report**

The RBI report points out that the contribution of the services sector makes to the overall growth of the economy has also been increasing. It can be measured as the sector's incremental share in the change in the GDP over a period. If the period from 1950-51 to 1990-91 is viewed in terms of decades, this measure was 30 per cent between 1950-51 and 1960-61, increased to 38 per cent during the next decade and 50 per cent between 1970-71 and 1980-81. In the next decade, it came down to 43 per cent as the secondary sector contribution increased in that decade. However, during the present decade, the services sector again became prominent. Between 1993-94 and 1994-95, the measure was 48 per cent, 57 per cent, between 1994-95 and 1995-96 and after coming down to 46 per cent subsequently it moved up to an all-time high of 73 per cent between 1996-97 and 1997-98. The services sector is certainly responsible for the dynamism the Indian economy has come to have during the current decade.

The RBI report makes this above-given claim quite explicitly. It notes that the performance of the services sector reflects the contribution that high value adding and skill-intensive services such as software are making to the overall output of the economy. Similarly, since the bulk of the increase in the share of the service sector has taken place in trade communication, banking and insurance, it represents "a spurt of technical progress and also increased competition, mainly induced by economic reforms."

The report goes on to say that "a relatively right growth of the services sector would be generally suggestive of gains in productivity in the agricultural and industrial sectors, induced by technological progress

and other innovations, which result in moving employment away from the non-services sector to services producing sector." This would indeed be the case if the sectoral transformation of the economy is viewed in terms of the relative employment position of the sectors. It is one of the laws of economic development that as an economy grows, there will be a shift in the work force from agriculture to industry and then to services. Increase in the productivity of the work force in the non-services sector is responsible for such shifts as demonstrated by the historical experience of the advanced western economies where the share of work force in agriculture declined from 65 per cent in the 19th century to about 20 per cent in the mid-20th century and then even further subsequently, very sharply in some instances.

But such has not been the case in India. Between 1996-97 and 1997-98, when the services sector accounted for the highest share in the increase in the GDP (73 per cent), the contribution of the primary sector was (-) 0.4 per cent indicating an absolute reduction in its contribution. However, it is not proper to assess the performance of a sector, especially one like agriculture solely by annual variations, but productivity, that is, production of a sector in relation to the workforce engaged in it.

The decennial census reports are the major and most reliable source of information about the sectoral composition of the work force. A striking aspect of the sectoral composition of the work force in the Indian economy was a certain stubborn stability in the first three decades since 1950-51, around 72 per cent in the agriculture sector, 12 per cent in industries and the rest, 16 per cent in the services sector. The 1981 census showed the first departure -68.8 per cent in the primary, 13.5 per cent in the

secondary and 17.7 per cent in the tertiary sectors. The 1991 census report shows that the tempo of change has been maintained with the share of the primary sector going down to 66.7 per cent, of the secondary sector also getting reduced to 12.8 per cent and that of the services sector increasing to 20.5 per cent. The fall in the share of the secondary sector reflects the reduction of workers in the household industry which may also explain to some extent the increase in the share of the service sector.

If we study the scenario of employed labour force in sectors and the sectoral contributions in our GDP, one thing become clear that the productivity of the agriculture sector (primary) has declined while that of the services sector (tertiary) has markedly increased. It is not implied that the service sector's impressive performance is only in a relative sense. Surely, in an absolute sense also productivity in many sub-groups of the service sector has been going up, software being the best example. There are also sub-groups in which productivity is stagnant. Measuring the productivity of the service sector is riddled with problems mainly because its output is the remunerations received by the workforce. The substantial increase in the services sector's contribution to the growth of the GDP during 1996-97 and 1997-98 was largely the result of the rise in the pay and allowances of the workers in public administration and defence following the implementation of the Pay Commission recommendation (Eco. Survey 1998-99).

Now that our services sector is making news, one must not forget that other two sectors also showed improvements. Services aren't the only indicators of growth and development. Other sectors play very vital roles. Thus, this trend needs right kind of introspection.

# Foreign Stock Exchanges & Indian Companies

## Introduction

It was a dream for any Indian company to enlist in any reputed foreign stock exchange. But this dream has come true as the former Finance Minister of India, Manmohan Singh's economic reforms had opened the gate for it. On 23rd of September ICICI created an Indian history by enlisting itself on the New York Stock Exchange (NYSE). It issued \$275 million ADRs at a premium of 10.3 per cent over the domestic price and over subscribed six times. Now the other major Indian companies are following this path. Reliance Industries Ltd. (RIL) too is eyeing to get enlisted on NYSE by planning its GDRs converting into ADRs. Satyam Infoways made debut on NASDAQ with 152 per cent premium. The officials are euphoric and celebrating the success. So, what is the big deal if any company gets enlisted in foreign bourses? How the Indian companies will be benefited and is it important from Indian economic point of view? To know all these we will have to understand the concept of Euro-issue.

## Euro-issue

Any issue will be an Euro-issue if the following conditions are fulfilled:

- Issue outside India
- Issue in any foreign convertible currency and
- Issue listed on one or more overseas stock exchange.

## GDRs/ADRs

GDRs and ADRs are the Global Depository Receipts (ADRs) are the types of instruments in addition to Foreign Currency Convertible Bonds (FCCBs).

**Depository Receipts** is a negotiable instrument evidencing a fixed number of equity shares of issuing company. ADRs are issued in case the funds are raised through retail market in United States by the companies abroad. ADRs could be listed on the NYSE, the American Stock Exchange and the National Association of Securities Dealers Association Quotation (NASDAQ) over the counter market or they could be issued as private placement securities under Rule [144a] in the US.

But in line with the globalisation trends in capital market, the concept of the ADR has recently expanded beyond the boundary of US market. In late 1990 the GDRs were introduced which were similar to the ADRs except that it is placed in multiple markets simultaneously and traded under a settlement. These

depository receipts are traded over overseas stock exchanges and investors do not carry voting rights. Whereas the equity shares are traded over Indian Stock Exchanges and investors have voting rights.

## Eligibility

To get enlisted in these exchanges the company has to cross following boundaries:

- A current equity market capitalisation of at least 100 million US dollars.
- Market turnover of at least US \$1 mn a week in the domestic market.
- Independently audited financial statements and financial disclosure arrangements meeting international standard.
- A track record of satisfactorily increasing market share, sales and profits.
- A conservative debt equity ratio by industry standards.
- A significant and growing share of export earnings.

If it is domestic oriented, domestic market dominate.

- Appropriate emphasis on quality, R & D, technology and global competitiveness.

Different investors place different degree of emphasis on these points. Then in the final analysis, the current price relative to earning prospects and compared to similar companies in other countries are usually the decisive factors. But prior to these tests some obligations from the Indian Government has to meet. The company should have a consistent track record of good performance (financial or otherwise) for a minimum period of 3 years. However, the three-year track record condition will be released in case companies seeking GDRs/FCCBs issues to finance investment in infrastructure industries, such as power generation, telecommunication, petroleum exploration and refining, ports, airports and roads. In addition, the Government of India valid guidelines dated 19.6.95 has also allowed banks, financial institutions and non-banking financial companies registered with Reserve Bank of India (RBI) to raise funds through GDR issues.

## Benefits to Cos.

Beyond the obvious opportunity of tapping a new source of corporate finance, there are very specified benefits to companies which access the international equity market through ADRs/GDRs.

- 1. Because of low level of stock prices in

most developing countries now relative to other markets, a well-designed depository receipts issue could attract a considerably high price per share than a similar issue sold in the domestic market-although in case of India where stock prices are currently very high, depository receipts have been issued at a discount i.e. lower than the face value.

2. Having the companies name in the international market would make future financing easier as the company would then have a known track record and broad range of market to tap. In this connection, most of the world's major global companies, US, Japanese, German, have their shares listed on several leading foreign stock exchanges for this reason. Exxon, IBM, General Electric, Sony, Shell, December-Benz and Toyota have listed on four or more foreign stock exchanges.

3. The third advantage applies especially to companies seeking global market for their products. Having foreign share holders and listing of their stocks on the major markets enhance their home recognition in those markets. This prestige helps in locating potential product marketing agents and suppliers.

As far as investor is concerned, there are lower management fees and lower execution costs in buying foreign stocks in his own market by way of ADRs. Further, the regulations governing portfolio investments for some institutions in some countries hold that a foreign stock (or Depository Receipt) listed on the domestic market is regarded as domestic and thus not subject to foreign investment limitations and this interests to the investors.

## Conclusion

Enlisting in foreign exchanges reflects that these companies are consistently doing well and their non-performing assets are less. This gives investors confidence in these companies which leads to rise in funds of companies.

- In this way companies can meet their demand and expand their business.
- Investors are benefitted
- Other related companies also grow to meet enlisted companies demand and supplies
- It creates employment in the domestic market
- This opens gate for other companies to enlist in foreign renowned exchanges. And this cycle goes on.

# TOP BUSINESS STORIES IN BRIEF



## Sensex hits all time high

The Bombay Stock Exchange Sensitive Index for the first time closed above the 5,000 mark as frenzied buying from foreign institutional investors (FIIs) continued unabated. Retail investors also showed their enthusiasm by hectic buying. The sensex touched the 5,155.90 and settled down at 5031.78 points.

Foreign institutional investors were aggressive buyers which was reflected in large inflows of foreign funds pushing the rupee further to close 6 paise stronger to the dollar at 43.36/37.

The consensus among marketmen is that Mr. Yashwant Sinha as a finance minister will start implementing second generation reforms without delay. The new Government is expected to initiate several tough measures to contain fiscal deficit and take steps to accelerate economic growth and improve investment climate.

## TCS Launches'Developer Tool

Positioning itself as a software developed for software developers, Tata Consultancy Service (TCS) today launched master craft, claimed to be the world's first comprehensive software development tool. Master Craft will enable systematic execution and management of large software development projects much more efficiently. A typical installation of Master Craft will cost around \$ 150,000.

## Canadian agency, PFC to Fund Core Projects

The Export Development Corporation (EDC) of Canada and the Power Finance Corporation will soon finalise a line of credit for infrastructure projects in India. EDC, which is Canada's official export credit agency is also in discussion with other leading financial institutions to explore possibilities of similar lines of credit.

PFC, which has just crossed loan sanctions of over Rs. 20,000 crore, is hoping to cash in on this new line of credit to increase its exposure. The total disbursements stood at over Rs. 13,000 crore till the end of September. EDC's medium to long-term financing is available through a number of structures, including direct lending.

## Corsa with 50% Indigenisation

General Motors India Limited is planning to launch the Corsa with 50 per cent indigenisation level to begin with. To be launched at the end of the year with a big push during the Auto Expo in January next year, the Ope Corsa

will target about 15 per cent of the lower mid size segment whose actual size may vary from 40,000 to 50,000 units.

## Verma Panel Proposes Bitter Medicine for Public Banks

The M.S. Verma working group asked Indian Bank, UCO Bank, and United Bank of India to launch a Voluntary retirement scheme (VAS) aimed at cutting 25 per cent of their total work force and go in for a five-year wage in return for a Rs. 5,500 crore restructuring package. Non performing assets (ANFs) is the core problem there and the recommendations are:

- Indian Bank, UCO Bank, UBI must shed 25% of their staff through VRS or cut wages.
- Panel wants freeze on wage rise for five years in the 3 weak banks.
- Indian Bank and UCO Bank urged to sell foreign branches and subsidiaries.
- Allahabad Bank, Central Bank, IOB, Punjab & Sindh Bank, Union Bank of India and Vijaya Bank are in distress and need to be revived.
- An asset reconstruction fund proposed to buy out Rs 3,000 cr NPAs of the 3 banks

## It is not cell

Cheap mobile telephones are going to hit market by MTNL but it is not a cellular telephone. What MTNL has launched is a wireless in Local Loop, (WLL) service based on the code division multiple access technology standard. Will is not a cellular service as it offers subscribers very limited mobility to a radius of 2-3 km.

## Jewellery and Watch Expo in Delhi

The Delhi International Jewellery & Watch Exhibition- was held at Pragati Maidan from 22 to 25 October. That was the fourth such event and had been organised by the International Trade and Exhibition Group India (ITE Group India). There was a workshop of renowned Italian Jewellers, participating under the aegis of the Italian Trade Commission. This workshop was on a larger scale and many MoUs and contracts have been signed.

## Maruti Sales up 13% in September

Passenger car makers have registered robust sales in September with market leader Maruti Udyog registering sales of 35,113 units, up 13 per cent from 31,106 units in the year-ago period.

## Exports rise by 10%, non-oil imports down 4%

August month witnessed 10.16% shoot up in Exports as compared with the previous year. In rupee terms exports grew up by 11.97 per

cent to Rs. 13,327.17 crore against Rs. 11,902.21 crore during the same period last year. Whereas non-oil imports in the first five months declined by 4.07 per cent to \$ 14.48 billion from \$ 15.09 billion during the same period last year. This negative non-oil import is not a good sign for economy as domestic growth is normally fuelled higher imports.

## Harshad gets 5 years rigorous imprisonment

One-time big bull Harshad Mehta was sentenced to five year's rigorous imprisonment by the special court on September 28. He along with three others, were sentenced on charges conspiring to misappropriate around Rs. 39 crore belonging to Maruti Udyog Ltd (MUL).

## Infotech Cos riding the boom

A large chunk of money is being diverted to Infotech initial public offering (IPOS). There is a boom in the tech IPOS like never before. Hughes Software garnered a mind-boggling Rs. 6,000 crore for a mere Rs. 250 crore offer, pipping Infosys' ADR collections earlier this year was \$ 1.2 billion. Mumbai based Kale Consultants having the highest oversubscription rate for premium IPOs. The Rs. 3825-crore public issue over subscribed 65 times and raised Rs. 750 crore in application money are the few examples of them.

## Economics Nobel prize for Robert Mundell

Robert Mundell won 1999 Nobel Economics Prize on October 13, in part for his prophetic theory on common currencies which formed the foundation for Europe's single currency, the Euro. Erling Norrby, Secretary-General of the Royal Swedish Academy of Sciences announced of giving away the award, worth almost \$ 1 million.

## Satyam Infoways debuts on NASDAQ with 152% premium

Internet service provider Satyam Infoways and the NASDAQ floor notching up a 152 per cent premium over its debut listing price of \$ 18 per American Depository Share (ADS). This is the third Indian company to trade on wall street, with Infosys and company's debut listing anywhere in the world.

## Insurance Bill Okayed

The Union Cabinet cleared the Cabinet note for the introduction of the Insurance Regulatory Authority Bill. The Bill was passed without discussion at the Cabinet meeting. The note caps foreign investment at 26 per cent signalling the opening up of the insurance sector.

# HOW SAFE IS YOUR STOCK

NDA's victory in the recent Lok Sabha Elections results in a boom in the stock market. The BSE Sensitive Index crossed the 5,000 mark. This is Diwali season for investors to invest in the stock market. They can be lured by increasing prices of shares and can rush to invest in any share blindly without considering how risky it is. Some reputed company's equities like Rotla, Himachal Futuristic and Steel Authority of India came on top in this category. Even the software companies show volatility in terms of trading. In the recent study revealed data of the top 125 companies in terms of market capitalisation. By taking Nifty into consideration, study is conducted over a year period from September' 98 to September' 99.

Rotla India emerged as the most risky security with a beta of 1.60 followed by Himachal Futuristic with 1.59 and SAIL with 1.58. Pentafour Software and Telco occupied the fourth and fifth place with a beta of 1.54 and 1.53 respectively.

## WHAT IS BETA?

Beta is one of the most widely-used parameters to measure the riskiness of a security. Riskiness in other words means the volatility of two securities. To measure a security's risk we have to regress its rate of return on the rate of return on the market portfolio. The market portfolio in this case is the NSE Nifty. A security with a beta of less than 1 is less volatile as compared to a security with a beta of more than 1. For e.g. if a security 'A' has a beta of 1.2, it means that if the index shows a 10 per cent change, then the price of 'A' will change by 12 per cent. If a security 'B' has a beta of 0.5, it means the price of 'B' will change by 5 per cent. And if the security 'C' has beta of 1 then it shows that if the index changes by 10 per cent then the price of 'C' too will change by 10 per cent. Higher the beta of the security, the more is its volatility. So, A, C, B are placed in decreasing volatility order. Closer the

## THE TOP 21 SHARES IN TERMS OF RISK

SCRIPT	Beta	Correlation
Rotla India	1.607	0.641
Himachal Futuristic	1.594	0.601
Communication		
Steel Authority of India	1.584	0.523
Pentafour Software & Exports	1.536	0.691
Tata Engineering & Locomotive Co.	1.528	0.671
Larsen & Toubro	1.460	0.771
State Bank of India	1.427	0.734
Digital Equipment (India)	1.426	0.612
Century Textile & Industries	1.424	0.551
CMC	1.420	0.538
Sterlite Industries (India)	1.403	0.665
Ashok Leyland	1.391	0.535
Corporation Bank	1.386	0.658
Grasim Industries	1.378	0.594
HCL Infosystems	1.361	0.569
Bharat Heavy Electricals	1.359	0.686
Satyam Computer Services	1.345	0.630
Associated Cement COS.	1.344	0.672
BPL	1.335	0.561
Global Tel-Systems	1.333	0.549
Reliance Industries	1.321	0.752

beta of a security is to 1, more will its movement guided by the index movement.

## THE RISK STATUS OF STOCKS

The beta of nearly all software companies was found to be high along with Rotla India and Pentafour Software & Exports which are in the top five. This shows an important fact that most of the software companies are quite volatile in terms of trading. They will be first to be effected in event of a index rise or a fall. Digital equipments, Silverline, CMC, HCL Infosystems, Satyam Computer have beta of 1.42, 1.41, 1.42, 1.36, 1.35 respectively are the evidence of it. Whereas companies such as Infosys Technologies, Glaxo, NIIT, ITC, MPRL, Aptech and India Cements were more or less aligned with the Nifty.

movements with their beta close to one. At the bottom of the list were pharmaceutical companies, such as Morepan Laboratories, Novartis, Pfizer, Cipla with a beta of 0.50, 0.55, 0.56, 0.62 respectively, considered as a safe set of companies. This indicates that these companies are the least volatile in terms of trading and their prices showed a lesser change as compared to the change in the Nifty.

## THE CORRELATION FACTOR

Not only beta, but correlation factor also influence riskiness factor. While beta indicates the rate at which the security fluctuates in comparison with the index, the correlation helps us to indicate the strength of the relationship of a particular security with index.

For instance, a security may have a high beta but its correlation with the sensex may be low. This broadly shows that even though the security is highly volatile as compared to the index, chances of it moving along with the index are quite less. A security with a correlation of 0.5 indicates that its chances of moving in the same direction as the index are only 50 per cent. For example, Steel Authority of India. Even though its beta is 1.58, its correlation is 0.523. This shows that its chances of moving in the same direction as the Nifty are only 52.3 per cent even though its volatility is quite high. A scrip can even have negative correlation with the index which means that it moves in the opposite direction as compared to the index.

From the view of correlation factor, Larsen & Toubro, Reliance and State Bank of India (SBI) emerged as the top three in terms of having the highest correlation of 0.77, 0.75 and 0.73 respectively with the Nifty. ITC and Pentafour occupied the fourth and fifth position with a correlation of 0.71 and 0.69 respectively. Scrips such as Container Corporation, Shipping Corporation, Morepan Laboratories, RCF were at the bottom all showing a correlation below 0.25 with the index.

—SANDEEP NANDI

# ECONOMY AT A GLANCE

- ➲ The Airports Authority of India (AAI) has handled a total of 3.7 crore passengers including 2.4 crore of domestic and 1.3 crore of international during 1988-99, an overall growth of 1.36 per cent over the previous year.
- ➲ National Agricultural Cooperative Marketing Federation (NAFED) has embarked upon a diversification plan to widen its business activities in marketing of food products, seeds and fertilisers, besides setting up a second plant for producing bio-fertilisers.
- ➲ Close on the heels of the listing of its shares on the New York Stock Exchange (NYSE), ICICI has decided to enter retail financing in a big way and increase profitability to enhance shareholders value.
- ➲ After a rash of nationalisation in 1969 and 1980, there are moves to privatisate them all over again. Mr. Yashwant Sinha favours private ownership of the country's 19 State-run banks.
- ➲ The Reserve Bank of India (RBI) constituted Verma Panel report on restructuring of weak public sector banks has recommended a Rs. 5,500 crore bail-out package for weak banks. The three loss-making banks are Indian Bank, UCO Bank and United Bank of India.
- ➲ Noida Toll Bridge Company Ltd. (NTBCL), formed to construct an eight-lane bridge between Noida and South Delhi, will raise 71 crore from the capital market. This is the first road project in the country to go public.
- ➲ After an overwhelming success of ICICI LTD., 10 more companies from India are expected to list their shares on the New York Stock Exchange in the next 12 months.
- ➲ Increased Indian exports of woollen garments to South-East Asia will drive up the country's imports of Australian apparel wool in 1999-2000 (July-June). Besides Australia, wool is also imported from New Zealand.
- ➲ The Insurance Regulatory Authority (IRA) Bill is likely to be passed in the budget session of Parliament or, in the winter session itself. The Cabinet has attached its permission to the Bill for the introduction in the Parliament.
- ➲ Expert Committee headed by S. Satyam (Textile Secretary) asked the Govt. to free textile machinery from excise duty, and also slash customs duty on it from the 28.25 per cent at present to 16.5 per cent to prepare the industry to face global competition.
- ➲ The Government has constituted a 10-member expert committee to examine existing laws relating to winding up proceedings of companies with a view to updating them with latest developments and innovations in corporate law and governance. The Committee is headed by Justice K.S. Paripoornam.
- ➲ The country's tea production has fallen short by 50 million kgs. causing the Indian Tea Association (ITA) to press panic button. The deficit is maximum in Assam.
- ➲ Leading automobile manufacturer including Maruti Udyog, Telco, Hero Honda and Bajaj posted negative growth in exports during the first-half of the current fiscal against the export performance in the same period last year. Passenger car exports declined by 15 per cent.
- ➲ On 12 October, 1999, for the first time, the Bombay Stock Exchange's sensex reached point 5150. Crossing the magic 5,000 mark for the second time, the BSE sensex also touched a new intra-day all time high of 5150.98.
- ➲ Powered by a buoyant manufacturing sector, industrial growth spurted to 6 per cent in April-August 1999-2000 compared to 4.2 per cent in the same period last year.
- ➲ South Korean car company Hyundai, on 14th October, launched its mid-size car "Accent" in three versions priced in the range of Rs. 5.35 lakhs and Rs. 5.85 lakhs.
- ➲ Master Value Unit Plan'98 (MVUP'98) was the best performer with its net asset value (NAV) appreciating by over 40 per cent during 1998-99 among the 22 domestic equity schemes of Unit Trust of India.
- ➲ The Government on 5th October lifted the artificial check on diesel prices it had maintained for the past six months. Diesel is costlier by a steep 40 per cent (ex-strong price). The price hike was necessitated by the sharp increase in global oil prices since April 1999.
- ➲ Reliance Industries Ltd. has been ranked 32nd in the World Investment Report 1999 list of top 50 transnational Companies (TNCs) from among developing Countries.
- ➲ Hexadecimal Computer Pvt Ltd. launched the world's first encyclopaedic website on India to help plan one's itinerary sitting at home in any part of the world. The site offers extensive data, descriptive details and fascinating images that make India come alive.
- ➲ Bihar has consistently been ranked last among 14 States on all principal parameters of development. Bihar is ranked 14th for the decade ending 1990 in terms of infrastructure and is listed in the category of "lowest infrastructure states". The State (Bihar) is better off only on the Indices of railway development having 30.81 km of railway per 1000 km<sup>2</sup> of area as against 18.67 km for the country as a whole.
- ➲ International Publishers Association, Geneva, the apex body of the worldwide book publishers, has appointed Asoke K. Ghosh, Chairman & M.D. of Prentice-Hall of India, as its Vice President.
- ➲ Software exports registered a 37 per cent growth during the first half of the current financial year, the Electronics and Computer Software Export Promotion Council said that Exports during April-September 1999 of was Rs. 10,370 crore.
- ➲ Foreign direct investment (FDI) into the country in the current calendar year is likely to remain stagnant at \$3.5 billion.
- ➲ The Comptroller and Auditor-General (CAG) of India has refused to conduct a special audit of Prasar Bharati and AIR on the grounds that the Information and Broadcasting Ministry has not taken any action against those already found to have committed financial irregularities.
- ➲ With stock market at their record peak levels, the Bombay Stock Exchange (BSE) has decided to increase its membership list by inviting applications from corporates for membership.



# ECONOMY IN A NUTSHELL

## INDIVIDUAL AND MARKET DEMAND

**Alfred Marshall States :** "The greater the amount to be sold, the smaller must be the price at which it is offered in order that it may find purchasers; or, in other words, the amount demanded increases with a fall in price and diminishes with rise in price." Thus the amount demanded of any commodity is a decreasing function of its price. This is the general law of demand. The demand for an article also depends upon the prices of related goods, the income of consumers, tastes and preferences of consumers and the wealth of consumers.

### 1. INDIVIDUAL DEMAND CURVE

Demand for any commodity is always at a price; demand, in fact, has no meaning or significance in economics unless it is related to price or prices. A middle class consumer, may demand a dozen oranges at Rs. 10 per dozen, 2 dozens at Rs. 9 per dozen, and so on. It must, however, be emphasised that the demand schedule is a list of alternative possibilities. At any time, only one of the prices will prevail in the market and thus one determinate quantity will be purchased.

### The Market Demand Curve

In a particular region, oranges are demanded by thousands of consumers. Market demand refers to the demand of all the consumers in a region or area. The market demand, which is the aggregate demand for a commodity, is calculated by adding the quantities demanded by all consumers. The fact that more will be demanded at a lower price than at a higher price, other things being equal, is true for all commodities, in all countries and at all times : hence it is given the status of a law, viz., the law of demand. This law is illustrated by a downward sloping demand curve which shows that

demand will expand as the price declines and it will contract when the price rises.

A linear demand function is stated as:

$D = a - bp$ , where

D = Quantity of the product demanded

a = Initial demand or autonomous demand irrespective of price

p = Price of the product

b = the constant parameter representing the functional relationship between price and quantity demand. In the above demand function, the negative sign reflects the inverse relationship between price and the quantity demanded, i.e., when the price comes down, the quantity demanded expands.

### 2. SHIFTS IN MARKET DEMAND

The law of demand states: Other things being equal, more will be demanded at lower prices than at higher prices. What do we understand 'by other things being equal'? What are the assumptions on which the demand schedules of an individual or a market are based? What happens when these assumptions or determinants are changed? As long as the assumptions hold good, the demand curve will hold good too; but when the assumptions change, the demand curve will shift to the right or to the left. Let us, at the outset, explain the various assumptions on which all demand schedules are prepared.

(a) **Number of Consumers :** The demand for goods or services depends upon the number of consumers in the market. The number of consumers in turn, will depend upon two conditions: (i) The size of population in the country; and (ii) the number of persons who will

enter the market for a particular commodity. An increase in population, for example, will lead to an increase in total demand. Again, reduction in taxes on goods will allow more persons to enter a particular market and thus raise the demand for a product.

(b) **Income and Wealth of Consumers :** The amount of goods or services which a consumer can buy will depend upon the size of income at its disposal. Changes in income will, therefore necessarily be accompanied by changes in the purchase of various goods, the degree of change varying widely with different types of goods. Some commodities—necessaries, for example—are not very responsive to change in income. In most cases demand is influenced not only by periods: If the marginal propensity to save is low, a large portion of the additional income earned will be used to buy additional goods. If, on the hand, marginal propensity to save is high, most of the additional income received will be saved and only a small portion will be used to purchase additional goods. Thus the levels of current incomes as well as the volume of accumulated wealth will affect the demand schedule for any product at a point of time. Any change in the level of income and wealth will obviously shift the demand curve.

(c) **Preferences, Habits, etc. of Consumers :** Another determinant of demand for goods and services is the intensity of consumers' preferences for them which, in turn, depends upon such factors as tastes, habits and customs. Consumers become habituated or accustomed to the use of certain goods and they may not change the use of such goods unless sufficient impetus is applied. Further, consumer preferences are moulded by the community and by the customs and conventions observed in a particular

## ECONOMY SECTION

society. Tastes, habits and customs on which consumer preferences for goods are dependent can be influenced by advertising and sales pressures and frequently producers find it profitable to do so. Changes in consumer preferences are brought about by changes in tastes, fashions and styles, by habits and customs through successful advertising campaigns.

(d) **Expectations of Consumers about the Future**: Anticipation of future prices of the commodity in question, as well as of those of its substitutes, will affect the height of the demand curve. If consumers anticipate a rise in prices they may buy large quantities of the particular product causing substantial increase in the demand schedules. Conversely, if lower prices are expected, consumers will curtail their demand, sometimes drastically. The height of a demand curve is thus affected by the expectations of future price. But it should be noted that these expectations can change frequently and hence the influence on demand due to this condition may be only temporary.

(e) **Existence of Substitutes and the Prices of Substitutes** : The demand for a commodity depends upon the existence and level of prices of alternative goods. The larger the number of substitutes, the smaller will be the demand for any one of them. At the sametime, the level of prices of different alternative goods has also great influence on the demand for every commodity. For instance, the demand for coffee will depend upon the price of tea. If the price of the tea is high, the demand for coffee will be high; and if price of tea is low, the demand for coffee will be low. Shifts in the prices of substitute goods will alter the demand curve for a commodity.

(f) **Price of Complementary Goods** : Finally, the demand for a product will not only depend upon the existence and price of substitutes but also on complementary goods. Thus demand for cement will depend upon the demand for bricks (cement and bricks are complementary goods in construction work). The demand for cement may rise because the price of bricks may be coming down (resulting in increase in demand of bricks and therefore, of cement as well).

Every demand schedule—showing the inverse relationship between price and quantity demanded—is based on the above-mentioned conditions. These factors or determinants of demand are assumed to be constant or unchanged for the period of which the demand curve is constructed. These factors can change completely only during the long period. As long as these factors remain constant, the demand curve constructed on the basis of these assumptions changes for the better or for worse.

The causes of change in demand or upward or downward shift can be summarised as follows:

### Upward Shift in demand

(Increase in demand)

(i) Increase in the number of consumers

(ii) Rise in the income and wealth of consumers

(iii) Improvements in tastes, preferences, customs and habits in favour of a commodity

(iv) Anticipation of consumers about a future rise in prices.

(v) Prices of substitutes rise

(vi) Prices of complements fall

### Downward Shift in Demand

(decrease in demand)

(i) Decrease in the numbers of consumers

(ii) Decrease in income and wealth of consumers

(iii) Change in tastes, fashions, preferences, etc. against a commodity

(iv) Expectation of consumers for the price to fall

(v) Prices of substitutes fall

(vi) Prices of complements rise

## 3. CROSS-DEMAND AND IN-COME-DEMAND

Broadly speaking, the quantity of a commodity or service which consumers wish to buy depends upon—(a) the price of the commodity or service, (b) on the price of the related goods, and (c) on the income of the consumers. Economists, therefore, distinguish between three kinds of demand—demand related to the price of that commodity, demand of a commodity related to the price of other

commodities and demand related to the income of the consumers. We are generally concerned with price-demand only. All the principles, given earlier, illustrate the price demand curve which is sloping downward from left to right, showing the inverse relationship between the price and demand for a product.

When a person acquires wealth, his demand for basic necessities—known as inferior goods—will come down—[while his demand for superior goods will rise]. For instance, when a consumer has more income, his demand for pulses, vegetables, meat, eggs, etc. [all these are regarded as superior goods] will increase and consequently his demand for wheat [regarded as inferior commodity] will come down. The income demand for an inferior commodity therefore, may slope backwards.

We may conclude that the demand of a consumer or of a household for a product is influenced by :

1. The prices of that product—at a higher price, less is demanded and at a lower price, more is demanded.

2. The price of other related goods, depending upon whether they are competitive or complementary goods; and

3. The level of income of a consumer—of higher income level, more will be demanded generally [except in the case of inferior goods].

## 4. OTHER TYPES OF DEMAND

**Industry Demand and Company Demand** : We have explained earlier the distinction between individual demand and market-demand. Individual demand meaning the quantity demanded by an individual consumer at various prices at a given point of time and the market demand meaning the total quantity demanded by all the buyers at various prices. The managerial economist, however, makes a distinction between industry demand and company demand.

Industry demand is the total demand for the product/products of a particular industry, as for example, the total demand for toothpastes in the country. On the other hand, the demand for any brand of toothpaste, say

Colgate may be called company demand. There are many firms or companies in the toothpaste industry. These firms are not producing an identical product but are producing different brands of the same product, such as Colgate, Promise, Cibaca, Forhans, Prudent and so on. Theoretically, an industry should consist of all firms producing an identical product. In practice, however, we take a broad definition of industry, that is, one which covers all firms producing similar products which are close substitutes, the "industry demand", for toothpastes has a clear and precise meaning. If, on the other hand, the different brands of toothpastes are not close substitutes but there is considerable difference between them—commonly known as product differentiation or variation—the concept of "industry" is vague and consequently the concept of "industry demand" is also vague and imprecise.

More important than industry demand is a company's share in the total industry demand and the relationship between the two. For instance, the total demand for toilet soap during a given period may be 100 million cakes, out of which Godrej's share may be 20 million cakes. We may say that Godrej enjoys 20 per cent of industry demand or the market demand for soaps.

The industry demand for soaps will depend upon the size of the population, the level of income and wealth of the consumers, tastes, preferences of the people etc.—in other words, industry demand depends upon so many economic factors over which a particular soap manufacturing company will have no direct influence. On the other hand, the market share enjoyed by a company is usually subject to manipulation by the company concerned or by its rivals. For instance, the lower the price of a company's product as compared to the prices of rival products, the larger will be its share of the market, other things being equal, of course. The market share of a particular company is likely to increase with increase in promotional expenditure and also with increase in product improvement. Much of the advertisement done by companies in

TV, Radio, Press, etc., is actually to boost their market share.

While forecasting demand and sales for his product, every business manager has to carefully project the growth of the industry demand, the likely growth of his rival's share in the industry demand, and finally project his own company's share in the industry demand.

**Autonomous Demand and Derived Demand :** Autonomous demand refers to the demand for a product which is wanted for itself. The demand for any type of food, house, furniture in a house, scooter, T.V., radio, car, etc. may be taken as autonomous demand. Autonomous demand is demand for consumer's good or final goods; it is also known as direct demand.

Derived demand, on the other hand is derived from another direct demand. For instance, the demand for a house is a direct demand; but the demand for cement, bricks, iron and steel etc., needed for the construction of a house is derived demand. House is the main product or parent product; bricks, cement etc. are dependent products. In the same way, a cup of tea is the main product, sugar, milk and tea leaf used for making tea are dependent products. The demand for machinery, raw materials and components, labour etc., is derived demand because these goods and services do not serve any direct but they help in the production of goods having direct demand. Broadly, therefore, we can state that the demand for consumer's goods will be direct or autonomous demand, while the demand for capital goods or producer's goods (that is, goods used for the production of other goods) can be taken as derived demand.

It should be noted that the distinction between autonomous or direct demand and derived demand is because, in modern times, most demands are inter-related and it is difficult to come across commodities whose demand is wholly independent of all others. Further, a commodity may have autonomous demand in some case and derived demand in another case. For example, the demand for a car will be direct demand when it is

used as private car and it will be derived demand when it is used as a private taxi. Demand for foodgrains will be taken as direct demand when foodgrains are demanded and used by consumers but it will be derived when it is needed by employers to pay their workers.

**Short-Term and Long-Term Demand:** The price of a product is determined on the basis of demand and supply. But demand and supply forces differ according to the period considered, and besides that adjustment of supply to changes in demand may take time. Marshall spoke of three different periods: very short period, also known as the market period, the short period and long period. If supply forces take a long time to adjust themselves to change in demand, the period is said to be a long period. If supply forces can adjust themselves easily and quickly to changes in demand but only to a small extent, the period is said to be a short period. But if there can be no change in supply because the period considered is too short, it is referred to as a market period. Even though this distinction of the time periods is essentially on the basis of supply and it ignores the forces of demand, modern economists give considerable importance to forces of demand in the short and long periods.

Demand for a product depends upon many factors, such as the size of population and the number of consumers, the level of income and wealth of consumers, the tastes, preferences, customs and habit of consumers and prices of other related products, the anticipation of consumers about the future availability and price of the product, and so on. In the short period, the demand for the product can be assumed to be constant, for the period is too short for any major changes in the various factors affecting demand to take place. The period is also very short for a seller or sellers to influence the tastes and preferences of consumers through advertisement. In the long run, however, all the factors affecting demand can be changed; there can be a change in the number of consumers; the level of income and

wealth can rise, the tastes and preferences of the consumers can be changed; Customs and habits can be formed or altered. In other words, there can be upward or downward shift in the demand curve in the long run (Commonly known as change in demand) and the long-run demand curve can be far more flatter than the short period demand curve, indicating that at a given price, more will be demanded in the long run than in the short run.

**Joint Demand and Rival Demand**  
When two goods are used together to satisfy a particular want, they are said to be jointly demanded. The demand for car owners for petrol, tyres, lubricating oil and spark plugs may be regarded as joint demand. Bread and butter are demanded together by most middle class Indian families in urban areas. The demand for one product, say butter, will depend upon the nature of the demand for its associate product, bread.

Rival demand refers to the case of a product which is demanded for two or more purposes. A good example is cement which is demanded by industry, as well as house construction. If the demand for cement in one use goes up, the supply of cement to the other use will be curtailed. This will change the price of cement and also bring about a change in the demand pattern for cement. Other examples of rival demand are : steel required in house construction, shipping, automobiles, railways and a host of other industries; coal demanded by railways and industry. Rival demand is also known as composite demand.

#### UTILITY ANALYSIS OF DEMAND

The law of demand states that, other things being equal, more is demanded at lower prices than at higher prices. What is the basis of law of demand? Why should consumers demand more at lower prices and less at higher prices? The law of demand can be explained either through Marshall's utility analysis or Hick's indifference curve approach.

#### MEANING AND MEASUREMENT OF UTILITY

"Utility" is the power of capacity of a commodity or service to satisfy a human want. Utility is not inherent in

a commodity, so that any one who uses it will get it. A South Indian may relish strong black coffee and derive much utility but a Punjabi may hate it. Utility is thus subjective depending upon the mental make-up of a particular consumer. As long as a commodity has some use—i.e., it has the capacity to satisfy a person—it has utility. However we must distinguish between utility and usefulness silk and nylon may not be as useful as wool in giving warmth during winter but as women demand them and use them. Silk and nylon garments have utility. A drunkard may be aware that liquor is harmful, yet liquor has utility since it can satisfy a human want. Utility has no market or legal implications. Possession of a gun by a thief and dacoit may be dangerous and illegal, but the gun has utility since it is wanted by some persons and since it commands a price. In simple terms, utility, therefore refers to the power of a commodity to satisfy a human want.

Generally, utility is said to mean satisfaction but, actually, we can clearly distinguish between utility and satisfaction. Utility of a commodity refers to the "expected satisfaction", which a consumer hopes to get from it, whereas satisfaction refers to "realised satisfaction". When a person considers the purchase of a commodity, he is actually comparing the price he is going to pay and the utility he is expecting from it. But he will get satisfaction only he consumes the product offer he has purchased it. Actual consumption is not necessary to visualise the utility of a commodity. Commodity may be at the show-window of the dealer, but it possess utility, and that is why it is demanded by the consumer. But a commodity can not yield satisfaction unless it is first consumed by him. In other words, utility can exist without consumption but satisfaction will necessarily come only after actual consumption.

Again, utility may be more or less than satisfaction. A consumer may expect a certain degree of utility while purchasing a commodity, but during consumption, he may find that he derives more or less than he has anticipated. But, in the case of

commonly-consumed goods and standardised products, the expected satisfaction will generally be the same as the realised satisfaction.

Finally, utility may be measured, although indirectly, through the use of price. The price a consumer is willing to pay measures the utility of the product to the consumer. But satisfaction, being something felt and enjoyed by a person, can never be expressed or measured directly or indirectly. There may differences between utility and satisfaction, but for the sake of convenience, we use them to mean the same thing.

#### Measurement of Utility

According to Marshall, the utility of a product for a person can be measured in terms of the price he is willing to pay for it. If a student is willing to pay 50 paise for a cup of tea, we can say that the utility which he expects from a cup of tea is equal to 50 paise. If he is willing to pay 50 paise for a cup of tea, Rs. 1.00 for a packet of cigarettes and Rs. 2.00 for a notebook, it means that the utility from 2 cups of tea is equal to a packet of cigarettes and utility from 2 packets of cigarettes or from 4 cups of tea is equal to the utility which this consumer gets from a notebook.

We cannot, however, use money to compare the utility which two persons may get from a commodity. While a rich man's son may be willing to pay Rs. 2 for the same pen but this does not mean that the former would derive more utility from the pen than the later. For the rich boy, this pen is just one more than he can own and he does not mind paying Rs. 10 for it, as he has plenty of money. On the other hand, the poor boy could be getting more utility from the pen as he may require it for an approaching examination. But he is willing to pay only Rs. 2 for the pen as he can afford to pay only this amount of money. In this case the price which a person is willing to pay does not actually measure the utility of the commodity but reflects only his income. Money can not, therefore, be used when we make inter-personal comparison of utilities.

# CURRENT ECONOMIC PANORAMA

1. According to President K. R. Narayanan's address to the Parliament on 25th October the new Government will strive to—

- (1) provide free education for girls up to college
- (2) make State Electricity Boards corporates
- (3) make law to promote e-commerce, internet revolution
- (4) provide automatic clearance route to FDI for \$10 billion inflow a year
- (5) All of the above

2. Truckers went on nationwide strike in mid-October. Their principal demand was—

- (1) reduction of diesel price
- (2) improvement of roads
- (3) reduction of tax
- (4) reduction of Government control
- (5) None of these

3. As per India's recent stand India likes to see that WTO is

- (1) emphasising more liberalisation
- (2) emphasising developmental aspect more than liberalisation
- (3) emphasising removal of tariff
- (4) proved beneficial for developed economies
- (5) None of these

4. On 30th November 1999, the WTO summit is going to be held at—

- (1) Seattle (Washington)
- (2) Lausanne
- (3) Cologne
- (4) Gutenberg
- (5) Geneva

5. In the new ministry, Minister of State in charge of banking, insurance and expenditure management is—

- (1) Yashwant Sinha
- (2) Dhananjay Kumar
- (3) V.K. Patil
- (4) Muftasoli Maran
- (5) None of these

6. The Government has constituted a 10-member expert committee to examine existing laws relating to wind-

ing up proceeding of companies with a view to updating them. The Committee is headed by—

- (1) Rabi Roy
- (2) S. Swaminathan
- (3) K.S. Paripoornam
- (4) D. S. Kumar
- (5) None of these

7. Regarding the excess land holding of Indian Railways which of the following statements is correct :

- (1) Railway is making master plan to distribute excess land among landless peasants.
- (2) Railway is making plan to use excess land commercially for its benefit
- (3) Railway is making plan to return the excess land to State Government.
- (4) Railway is making plan to use excess land to build its factories.
- (5) None of these

8. As per the latest report tea production in the country has fallen short by 50 million kgs. The deficit is highest in—

- (1) Tamil Nadu
- (2) Tripura
- (3) West Bengal
- (4) Assam
- (5) Meghalaya

9. Which of the following statements is correct about the performance of automobile sector in the first half of the current fiscal year (1999-2000)?

- (1) Automobile sector posts positive growth in total production but export growth decline substantially
- (2) It posts positive growth in both total production and exports
- (3) domestic demand for passenger cars declines
- (4) external demand for Indian automobiles increased
- (5) None of these

10. After the military takeover Pakistan Central Bank warned of crackdown of economy in Pakistan. The

name of Pak. Central Bank is—

- (1) State Bank of Pakistan
- (2) Central Bank of Pakistan
- (3) Bank E. Pakistani
- (4) National Bank of Pakistan
- (5) None of these

11. Recently, Government has proposed a hefty 50 per cent duty on wheat to—

- (1) restrict dumping
- (2) restrict import in the time of buffer stocks
- (3) keep the price higher
- (4) restrict import of low quality wheat
- (5) None of these

12. The Government plans to bring about major changes in the Companies Act. The objective of the change is

- (1) to make corporate governance more transparent
- (2) empowering SEBI
- (3) redefining approval through postal ballot
- (4) 1, 2, and 3
- (5) None of these

13. In the following pairs you find the names of companies and names of cars manufactured by them. Find the pair which is not correctly matched.

- (1) Maruti-Baleno
- (2) Opel - Corsa
- (3) Hyundai - Accent
- (4) Ford - Icon
- (5) Daewoo- Centro

14. 1999 Nobel Prize for Economics was won by—

- (1) Amartya Sen
- (2) Robert Mundell
- (3) Samsur Rahman
- (4) G.M. Keynes
- (5) None of these

15. The Associated Chambers of Commerce of India (Assocham) in co-operation with a State Government is

going to develop "Knowledge Millennium" for the benefit of common man. The state govt. which extends cooperation is—

- (1) West Bengal
- (2) Andhra Pradesh
- (3) Karnataka
- (4) Tamil Nadu
- (5) Maharashtra

16. The national Y2k action force is headed by—

- (1) Montek Singh Ahluwalia
- (2) K.C. Pant
- (3) Pranay Roy
- (4) Chandra Babu Naidu
- (5) Mr. P. K. Mahajan.

17. The second highest Foreign Direct Investor in India is—

- (1) USA (2) UK
- (3) Japan (4) Germany
- (5) Mauritius

18. Verma Committee report on the three weak nationalised banks has been published recently. These weak banks are—

- (1) SBI, UCO Bank and Punjab Sind Bank
- (2) Bank of Baroda, Bank of Karnataka and Kanara Bank
- (3) UCO Bank, Indian Bank and United Bank of India (UBI)
- (4) State Bank of India, Punjab National Bank and Bank of Baroda
- (5) None of these.

19. In the recent decision on minimum support prices of 10 commodities including cotton, paddy, pulses etc. the MSP of these commodities hiked in average by—

- (1) 8%
- (2) 10%
- (3) 6%
- (4) 5%
- (5) 7%

20. UNESCO's prestigious Noma Literacy Prize for 1999 was won by—

- (1) National Literacy Mission (NLM)
- (2) Sulabh International
- (3) Ministry of Human Resource Development
- (4) State Govt. of Mizoram
- (5) None of these

21. Recently the US Commerce

Dept. has decided to impose punitive tariff ranging from 1 per cent to 23 per cent on steel imports from India. Which is/are the other country or countries which is/are subjected to the same tariff barrier?

- (1) France
- (2) Indonesia
- (3) Italy
- (4) South Korea
- (5) All the above

22. In its recommendation, the RBI-constituted Committee on Technology Upgradation has recommended that—

- (1) RBI Act of 1934 be amended
- (2) RBI should be entrusted with regulatory and supervisory powers on payment and settlement systems
- (3) RBI should be made free from Government control
- (4) Both 1 and 2
- (5) Both 2 and 3

23. Disinvestment Commission Chief who has resigned recently is—

- (1) G.K. Deshmukh
- (2) G.V. Ramakrishna
- (3) S. K. Goenka
- (4) R.K. Pathak
- (5) S.N. Saikia

24. The new Cash Reserve Ratio announced by the Reserve Bank of India is—

- (1) 10%
- (2) 9.5%
- (3) 10.5%
- (4) 9%
- (5) 8.5%

25. NRI Industrialist Lord Swaraj Paul has been appointed as a member of British Industrial Development Board. He is the Chairman of—

- (1) Wipro group
- (2) Caparo group
- (3) Windsor group
- (4) Paul group
- (5) None of these

26. Which of the following statements is correct about the performance of Steel Authority of India (SAIL) in the first half the current fiscal (1999-2000)?

- (1) SAIL posted a loss of Rs. 1,348 crore
- (2) SAIL posted a profit of Rs. 1,348 crore

(3) SAIL's net profit increased marginally

(4) SAIL's net profit decreased marginally

(5) None of these

27. The Government is considering the removal of a commodity from the public distribution system (PDS) list. The commodity is—

- (1) rice
- (2) sugar
- (3) wheat
- (4) kerosene
- (5) maida

28. The Disinvestment Commission is vested with—

- (1) statutory power
- (2) advisory power
- (3) constitutional power
- (4) governmental power
- (5) No power at all

29. In the East Asia Economic summit organised by the World Economic Forum, Indian delegation was headed by—

- (1) Tarun Das
- (2) Vinay Rai
- (3) J. N. Godrej
- (4) P. R. Kumarmangalam
- (5) None of these

30. Swedish arms company producing Bofors gun is newly named as—

- (1) Swiss Gun
- (2) Celsius
- (3) Bofors India
- (4) United Gun
- (5) None of these

31. The first Indian company which has been registered in New York Stock Exchange is—

- (1) ICICI
- (2) VSNL
- (3) SBI
- (4) Satyam Computers
- (5) None of these

32. Mahanagar Telephone Nigam Limited has reduced the registration charge for the installation of telephone facility from Rs. 3000 to—

- (1) Rs. 2000
- (2) Rs. 1000
- (3) Rs. 1500
- (4) Rs. 500
- (5) None of these

33. The new Government is working for privatising the nationalised banks. The banks were nationalised in—

- (1) 1969
- (2) 1980
- (3) 1969 and 1980
- (4) 1991
- (5) None of these

34. How many nationalised banks are there in India?

- (1) 19
- (2) 25
- (3) 24
- (4) 15
- (5) 12

35. Which of the following companies in the first road constructing company to collect capital through bonds and equities :

- (1) Noida Toll Bridge Company Ltd.
- (2) U.P. Bridge Construction Company Ltd.
- (3) Haryana Roadways
- (4) National Highway Authorities Ltd.
- (5) None of these

36. Standard Ornament gold is—

- (1) 24 carat
- (2) 23 carat
- (3) 22 carat
- (4) 25 carat
- (5) None of these

37. 8th World telecom event Telecom'99, organised by International Tele-Communication Union (ITU) was held recently at—

- (1) New Delhi
- (2) New York
- (3) Geneva
- (4) Bonn
- (5) Hong Kong

38. How many sectoral indices are there in Mumbai Stock Exchange?

- (1) 4
- (2) 5
- (3) 6
- (4) 19
- (5) 9

39. Industrial sector in the first half of the current fiscal (1999-2000) registered a growth of—

- (1) 9%

- (2) 15%
- (3) 7%
- (4) 6%
- (5) 4%

40. Confederation of Indian Industries (CII) is going to hold its Brand Equity Summit at—

- (1) Chennai
- (2) New Delhi
- (3) Bangalore
- (4) Hyderabad
- (5) Calcutta

41. World's longest exclusive LPG pipeline is being constructed from Jamnagar (Gujarat) to—

- (1) Haldia
- (2) Panipat
- (3) Loni
- (4) Delhi
- (5) Chandigarh

42. "Money in minutes" money transfer service is launched by—

- (1) Western Union
- (2) State Bank of India
- (3) Air Tel
- (4) Mistui Bank
- (5) None of these

43. "Collateralised Lending Facility" was recently modified. The same is done by—

- (1) Ministry of Finance
- (2) Ministry of Trade & Commerce
- (3) Reserve Bank of India
- (4) State Governments
- (5) None of these

44. Mumbai Stock Exchange sensitive index closed above 5000 mark for the first time on—

- (1) 11th October'99
- (2) 12th October'99
- (3) 2nd October'99
- (4) 15th October'99
- (5) None of these

45. The Prices of "life-saving drugs" are settled by—

- (1) The ministry of health
- (2) State Government
- (3) Pharmaceutical Pricing Authority
- (4) Industry ministry
- (5) None of these

46. Internal Fund UGS-1000 was

launched by the—

- (1) LIC
- (2) UTI
- (3) GIC
- (4) SBI
- (5) ICICI

47. The Five Year Plan which is in progress now is the—

- (1) 8th F.Y.P.
- (2) 9th F.Y.P.
- (3) 10th F.Y.P.
- (4) 11th F.Y.P.
- (5) None of these

48. The Finance Minister of the new Government is—

- (1) Yashwant Sinha
- (2) Marasoli Maran
- (3) Digvijay Singh
- (4) Nitish Kumar
- (5) Mamta Bannerjee

49. How many registered Stock exchanges are there in India?

- (1) 12
- (2) 23
- (3) 24
- (4) 10
- (5) 4

50. Which is the largest stock exchange in India?

- (1) National Stock Exchange
- (2) Mumbai Stock Exchange
- (3) Calcutta Stock Exchange
- (4) Delhi Stock Exchange
- (5) None of these

#### SHORT ANSWERS

- 1. (5) 2. (1) 3. (2) 4. (1)
- 5. (3) 6. (3) 7. (2) 8. (4)
- 9. (1) 10. (1) 11. (2) 12. (4)
- 13. (5) 14. (2) 15. (2) 16. (1)
- 17. (5) 18. (3) 19. (2) 20. (1)
- 21. (5) 22. (4) 23. (2) 24. (4)
- 25. (2) 26. (1) 27. (2) 28. (2)
- 29. (4) 30. (2) 31. (1) 32. (3)
- 33. (3) 34. (1) 35. (1) 36. (3)
- 37. (3) 38. (2) 39. (4) 40. (1)
- 41. (3) 42. (1) 43. (3) 44. (1)
- 45. (3) 46. (2) 47. (2) 48. (1)
- 49. (3) 50. (1)

# Mandate for Stability

## THE 13th LOK SABHA ELECTION

Lok Sabha election is a great event in the political history of our nation. The 13th Lok Sabha is all the more significant because, hopefully after a long time, it is expected that the present Lok Sabha will be more stable. This event is an important aspect of the current affairs (General Knowledge). At the end of this article, the readers will find a set of questions which they are advised to do.

-- Editor

India's decade long search for political stability seems finally to have ended. It has come to fruition not with the return of a dominant Grand Old Party with a "Charismatic" member of the Nehru-Gandhi clan at the helm. It has come through a diverse BJP-led, 24 party coalition. A 24-Party coalition under any other circumstance would have meant a sure disaster but not this time. Although the 13th Lok Sabha elections betray a lack of uniformity or a nation wide pattern, but they also mean that a fare as varied as Hindutva, Mandal and the rise of regionalism, have all been digested.

### Issues Raised

The 13th Lok Sabha elections raised several issues even prior to the election. These were :

(i) Having all the experiments in stability failed, which party or a coalition of parties was likely to provide stability ?

(ii) What was closer to the hearts of electorate ? National issues or regional and local issues ?

(iii) How effective was Kargil issue ?

(iv) Could the electorate accept the fact of Sonia's accession to the highest seat of power, especially because she is of foreign origin ?

(v) Has Sonia the power to revive the fate of Congress, on the merit of being from the Gandhi-Nehru dynasty ?

(vi) How seriously is the electorate taking politicians and the political

parties ? How seriously do they take frequent elections ?

(vii) What will be the fate of the third front ?

(viii) What will be the fate of the left parties ?

Let us answer each of these questions one by one. Interestingly enough no single party has gained enough strength of numbers to form the Government on its own. This has been so since the last decade. And this time as well. Therefore, the phase of one-party dominance is over. The Congress has not only failed to muster an absolute majority but even failed to emerge as the single largest party. Although the BJP emerged as the largest party, it failed to muster enough strength to form a government on its own. This was quite obvious even before the elections were held. Therefore, the BJP formed an alliance with 23 other parties. This was a pre-poll alliance of 24 parties called the BJP-led National Democratic alliance.

From the results of the election it became clear that electorate in India is more interested in their day to day affairs, in the regional and local issues, in the issues that directly affect the people. That is why the anti-incumbency factors play a greater role in elections, especially at the level of state. Infact this became evident after the first phase of the election, after which the BJP-election managers changed their campaigning strategy to the tune of the local and regional demands. According to most of the

analysts, the Kargil issue, in which Vajpayee was projected as a hero did not dent ice with the rural voters. Nor were the voters much pleased with the negative style of campaigning adopted by the Congress against BJP over Kargil and sugar imports from Pakistan.

Similarly, the electorate simply over-looked the hue-and cry made over Sonia's foreign origin. A common man, more interested in down to earth bread and butter matters would hardly notice the din and noise of Kargil and foreign origin of Sonia. Sonia stood from Bellary (Karnataka) and Amethi (UP) and won both the seats with a not so big margin at Bellary and huge margin at Amethi. Analysts have interpreted it in different ways. Some have simply interpreted it as a mandate in favour of Sonia Gandhi, while the others have interpreted not so big margin from Bellary, a traditional Congress bastion as not an overwhelming mandate in favour of Sonia. Still others feel that people are prepared to accept Sonia as the President of the Congress, but whether they would still prefer her as a PM cannot be concluded from this election or the over all result of the Congress.

Sonia Gandhi was almost pushed into the active politics by the Congress stalwarts in the hope of infusing a fresh lease of life into the moribund Congress Party. Moreover, her two children were also roped into the campaign. At the moment, dynastic

loyalty seems to have faded out except at some of the traditional Congress seats like Amethi, Bellary and Chikmagalur etc. This means heterogeneity of the India voters seems to be more tenacious than the superficially unifying factors like loyalty to the dynasty or even Hindutva, which the BJP has of late thankfully come to realise.

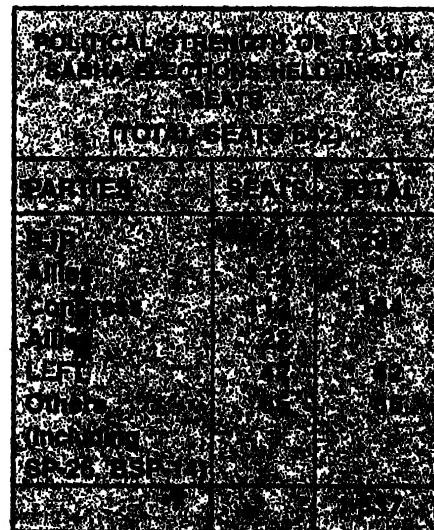
Despite the heterogeneity of the voters and their changing profile one fact emerges out clearly, for sure : Electorate is fed up with frequent elections. It is more than willing to vote for a party or coalition which is willing to provide stability in the first place and cater to their more urgent needs as check on inflation, health, education, electricity etc, or infrastructural needs. This is clearly reflected in the massive mandate that the TDP of Chandrababu Naidu got. His massive electoral mandate also demolishes the myth of anti-incumbency vote, which means people are negatively oriented towards the party in power. No doubt Chandrababu Naidu was rewarded for his hard work in undertaking the large-scale developmental activities in Andhra Pradesh.

### Question of Stability

According to BJP leaders, their government fell, not because of coalition but because of the inbuilt instability of the 12th Lok Sabha. What it means that numbers were such that personalities- in this case Jayalalitha- held the key. As for the potential Chautals, Saifuddin Soz and Subramaniam Swamy of the 98 coalition, the latter two have lost and Swamy even forfeited his security deposit. Their nuisance value is minimal due to the strategic number achieved by the BJP-led NDA. The Congress is also in no mood to join any Operation Topple for a few years, unless they want to dip below 100. Not merely favourable arithmetic or the fact the NDA (National Democratic Alliance) approached people with "Vajpayee for PM" slogan, but the present coalition being stability inclined also assures perhaps a full

term to the Government. Strong anti-Congress theme binds the coalition together. In brief, the sheer improbability of parties such as the BJP, JD(U), TDP, Akali Dal etc. going with the Congress. The Karnataka debacle for NDA has ensured that Ram Krishna Hegde, always willing to lend an ear to his secular friends including Harkhan Singh Surjeet, has a limited role to play. The Vajpayee-George Fernandes unity over Kargil brings them closer.

Initially, there was as expected squabbling over Cabinet berths, but thankfully it did not lead to any major rift in the alliance. The BJP was likely to face inner party conflict over 'Hindutva' from the NDA, the party and the Sangha, but its election manifesto very deftly put aside issues like Article 370 and Mandir. Even the choices for those opposed to the Government on these issues is limited. Where can they go ? To the Congress or the people ? The change in the profile of the BJP over the past decade to accommodate the Mandalisation of north Indian polity has meant that inner-party stability too is not a major cause of worry. The trouble in Uttar Pradesh is linked more to mismanaging the politics of caste and individual ambition. On the whole a host of internal and external factors will in all probability aid the stability and the longevity of the Government.



### SOME PROMINENT WINNERS & LOSERS

#### WINNERS

- SONIA GANDHI
- MAMTA BANNERJEE
- L.K. ADVANI
- RAJ BABBAR
- MADHAV RAO SCINDIA
- UMA BHARATI
- VINOD KHANNA
- P.A. SANGAMA
- NITISH KUMAR
- GEORGE FERNANDES

#### LOSERS

- H.D. DEVE GOWDA
- SURJIT SINGH BANERJEE
- BHAJAN LAL
- SUKHBIR S. BADAL
- K.L. SHARMA
- SUBRAMANYAM SWAMY
- BALRAM JAKHAR
- MEERA KUMAR
- LALOO PRASAD YADAV
- MANMOHAN SINGH
- SUSHMA SWARAJ

### PERFORMANCE IN THE STATES

#### Uttar Pradesh :

Uttar Pradesh has the largest number of Lok Sabha seats and is to a certain extent therefore also an indicator of the political health of a party despite the surprises, this state has to offer. Analysts had written off Samajwadi Party of Mulayam Singh Yadav, but SP's tally went up by six seats to 26 and BSP has taken its tally up to 14 from four. Political voting particularly by the minorities, against a somewhat sensitive Kalyan Singh administration and all opposition parties seem to have benefitted in the process. Even Vajpayee's winning margin in Lucknow, compared to last election dipped by approximately one lakh votes. The Congress has been a net gainer by 10 seats from the zero last time. The 29 seats that BJP got (57 last time) was largely because of,

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Individual stature of certain candidates. Kalyan Singh must take the blame for party's poor performance because of inclusion of criminals in his cabinet and a very shrill backward caste motivational campaign headed by Kalyan himself over and above his autocratic style of functioning.

### **Andhra Pradesh**

Both in the assembly election and the Lok Sabha elections TDP is head and shoulders above the rest.

### **ANDHRA : NO ANTI-INCUMBENCY**

ASSEMBLY	LOK SABHA
No. of Seats - 293	Total seats - 42
TDP - 180	TDP - 29
Congress - 90	Congress - 5
BJP - 12	BJP - 7
Others 11	MIM - 1

The only consolation for the Congress is that it has increased its presence in the assembly from a mere 26 members last time to 90 this time around. In the Lok Sabha, the Congress came a cropper with just 5 seats. The TDP's own tally was an impressive 29 out of 42 parliamentary seats in the State. The BJP too won 7 of the 8 seats it contested. It seems to have been a combination of Vajpayee's appeal as well as the State Government's performance which carried the day. Never before, not even during the NTR wave in 1984 or in 89 could the TDP win as many parliamentary seats as it has done this time.

### **Karnataka**

The outcome of a pre-poll BJP-JD (U) alliance in Karnataka has collapsed. The conclusion was foregone. The BJP paid the price for embracing a discredited outfit in its frenzied bid to chart new territories down South. The squabbling partners in this forced wedlock made things easy for the Congress - the BJP worked for Patel's defeat, the JD (U) encouraged its candidates to contest seats originally earmarked for the

BJP, and leaders who were not given party tickets, thanks to confusion, worked for the success of Congress candidates. The upshot : the Congress has won a comfortable majority with 132 of the 224 assembly seats in its kitty. The BJP-JD(U) won less than half that number at 63, and the Deve Gowda led Janata Dal (secular) finished with nine seats. Besides, the Congress's performance in the parliamentary elections has also been spectacular - the party won 18 of the 28 seats, actually twice as many as that it won in the last year's elections. The BJP-JD(U) alliance has to be content with 10 seats compared to 16 won by the BJP-Lok Shakti last time

### **KARNATAKA : TURNAROUND**

ASSEMBLY	LOK SABHA
No of seats - 224	Total seats - 28
BJP - JD - 63	Congress - 18
JD (S) - 9	BJP - JD(U) - 10
Others - 20	

### **Maharashtra**

It was not quite a sweep for Sharad Pawar as was expected, but he held the key to State Government formation, having been actively wooed by both Congress and the BJP. Pawar favoured his parent party the Congress. Thus the NCP-Congress alliance came to power in Maharashtra, but the alliance is once again facing problems over the proportionate share in the Cabinet. The elected legislators of both the INC and NCP interpreted the mandate for the Congress and the NCP.

There is not much glee in the Sena-BJP camp either. The results have put paid to Gopinath Munde's ambition to become the next Chief Minister of Maharashtra considering his party come in fourth in the assembly polls. The BJP was therefore, luke warm about Government formation.

### **MAHARASHTRA : INDECISIVE**

ASSEMBLY	LOK SABHA
No of Seats : 288	No of Seats - 48
Congress - 75	Congress - 11
Shiv Sena- 62	Shiv Sena- 16
B J P - 50	B J P - 12
N C P - 57	Others - 3

Before the Government formation, there was enough confusing possibilities : a Congress - NCP government supported by the smaller parties like PWP; a BJP - Shiv Sena Government supported by the NCP from outside and a BJP-NCP Government with outside support from the Sena. After more than a fortnight of wrangling ever since the assembly election results, Vilasrao Deshmukh of the Congress became the Chief Minister of Maharashtra with the support from the NCP. It is too early to predict the viability of the coalition, given the yet unending confusion over the distribution of portfolios.

### **Bihar**

Bihar always throws surprises. Laloo's defeat is perhaps the greatest surprise this time. A poor performance by the RJD was expected, but no one had expected that the extent of defeat would be so severe. There were allegations of rigging. Some booths registered over 100 per cent polling despite abysmal turnouts. Sharad Yadav, the JD(U) leader went on a fast unto death against rigging in Madhepura constituency and subsequently the Patna High Court passed a decision to withhold the result of Madhepura seat.

But the Laloo charisma has waned. Of the 50 seats that went to the polls, the RJD managed to get seven seats and the Congress three. Voting in four seats was postponed.

The BJP - JD(U) alliance achieved a remarkable victory in Bihar and compensated for the BJP's losses in Uttar Pradesh. The combine has bagged 40 seats with the BJP winning 23. With the results it's now clear that two factors played a major role in

Laloo's defeat. One, the consolidation of anti-Laloo votes for the first time and two, the erosion of Laloo's own vote bank. Six BJP-JD(U) Yadav candidates pitted against the RJD-Congress Yadav candidates have won, indicating Laloo's eroding influence. The earlier winning equation touted by Laloo that 32 per cent of the voters- 14 per cent Yadavs, 13 per cent Muslims and the 5 per cent other Backward castes-were with him has been proved wrong. According to some observers it is the loss of Dalit supports against Laloo which has proved his nemesis. And the credit for this goes to Ram Vilas Paswan. He mobilised Dalit Votes throughout North-Central Bihar in favour of BJP-JD(U).

### Government Agenda

Now that the Government formation has taken place at the Centre, the road ahead for the Government is not an easy one, it is riddled with pitfalls :

- The NDA agenda will be fundamentally economic and will rest on the passage of four important bills : the Insurance Regulatory Authority Bill (already introduced), the Foreign Exchange Management Act, the Money Laundering Bill and the Companies Bill.

- Controversial bail out package for the ailing telecom operators to be ratified by the Cabinet

- Ram Mandir : VHP has already announced that it will stick to its schedule of beginning construction by 2001.

- A broad consensus will have to be hammered out before the ministerial meeting of the WTO to be held from November 30 in Seattle.

- The Government will also be under immense pressure to get its disinvestment and privatisation programme on the road. The principal opposition parties and perhaps the BJP's own allies will protest

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- The much touted 13,000 km, Rs 60,000 crore road project will have to be put in top gear.

- Renewed pressure by the US to resume dialogue with Pakistan. Government will have to deal with Pakistan headed by a military commander.

- Next summer, Cauvery dispute could surface once again.

The first move of the Vajpayee Government was to increase the diesel price. Notwithstanding the international compulsions, the Government has begun to face flaks in the form of shortage of essential commodities due to transporters' strike. The insurance sector employees have also threatened to go on strike over insurance regulatory bill. But these are the harsh steps Government cannot stop taking. How successfully it emerges out of these hardships, perhaps also holds the key to its survival.

### EXPECTED QUESTIONS

- Who is the Railway minister in the Cabinet ?

- George Fernandes
- Nitish Kumar
- Mamta Bannerji
- Ram Vilas Paswan

- From which constituency did Sharad Yadav stand ?

- Purnea
- Madhepura
- Gorakhpur
- Balia

- How many political parties are there in the National Democratic Alliance ?

- 20
- 22
- 23
- 24

- Maneka Gandhi has been appointed as Minister of State for

- Environment and forest
- Non-conventional Energy Sources

- Health and family welfare

- Social justice and empowerment

- Who is the President of the Nationalist Congress Party (NCP) ?

- T. N. Seshan
- Chandrababu Naidu
- Sharad Pawar
- Uma Shankar Dikshit

- How many seats did RJD get in the 13th Lok Sabha elections ?

- 5
- 7
- 9
- 18

- In which amongst the following States did the BJP get the maximum number of seats in the 13th Lok Sabha elections ?

- Bihar
- UP
- Gujarat
- Rajasthan

- In which amongst the following states has the congress given the most spectacular performance in terms of the number of seats in the 13th Lok Sabha elections ?

- Maharashtra
- UP
- Bihar
- Karnataka

- Which amongst the following is the top priority of the NDA government?

- Mandir issue
- Kashmir issue
- Economic issue
- Foreign relations

- Who is the Chief Minister of Maharashtra ?

- Gopinath Munde
- Vilasrao Deshmukh
- Sharad Pawar
- Chagan Bhujbal

### SHORT ANSWERS

- (3)
- (2)
- (4)
- (4)

- (3)
- (3)
- (1)
- (4)

- (3)
- (2)

—Ajit Kumar Jha

# Military Coup in Pakistan

Dear Readers,

You must be aware that Coup-de-etat has taken place in Pakistan, one of our important neighbours. Therefore an article on this issue is only timely. But more than that we must expect a question or two in the forthcoming one day objective type exams. The questions may not necessarily be from the coup, rather the questions may pertain to other aspects of Pakistan. Therefore, we have tried to make our article more General Knowledge Oriented by supplementing the article with facts and figures in view of the complaints and suggestions of our readers. At the end of the article you will find a set of questions based on the article. Try to answer those questions, after reading the article.

—Editor

The word Coup means 'overthrow of government'. On October 12, 1999 the Chief of Pakistan army, General Pervez Musharraf overthrew the duly elected Government of Nawaz Sharif and installed himself as the head of the Interim Government. This was a military coup. The fourth military coup (pronounced koo) in Pakistan to be precise. As soon as General Pervez Musharraf took control of the Government he put Nawaz Sharif, the other provincial chiefs, the close relatives of Nawaz and others in important positions, appointed by Nawaz Under House arrest. The military coup in Pakistan raises several questions, e.g.—

What led to this drastic step?

What is the Indian and the World reaction to the coup?

What will be the consequences of this coup for Pakistan already in an economic turmoil and India as a neighbour?

In this article we shall deal with these questions and also a question of perhaps greater political and academic relevance, why is Pakistan so vulnerable to military coup in comparison to India, a stable democracy since independence. You can see the stark contrast in the present context. After the Kargil war, both India and Pakistan were internally rocked by controversies and tensions. But, in Pakistan the civilian Government was overthrown while in India the Government under the leadership of Vajpayee was constitutionally elected to take an oath of office almost at the same time.

## Reasons for Coup

In his address to the nation, General Pervez Musharraf justified the military coup in Pakistan on the grounds that it was necessary to save the country from turmoil and economic collapse. "You are all aware of the kind of turmoil and uncertainty that our country has gone through in recent times. Not only have all the institutions been played around with and systematically destroyed, the economy too is in a state of collapse."

The above statement by General Pervez Musharraf clearly points at the undoings of Nawaz Sharif, which itself is a longlist. Some of them may be pointed out briefly.

1. Ironically, General Pervez Musharraf who overthrew Nawaz Sharif was himself hand-picked by Sharif as Chief of army staff after Gen. Jehangir Karamat was sacked last year. Then Musharraf went out of his way to prop up Sharif's Government—from ordering the army to unearth ghost schools and carry out a long-overdue census to manning military courts and taking charge of the notoriously corrupt and inefficient water and power development authority.

2. Inefficiency, nepotism and corruption in the Government and higher echelons.

3. Gradual assumption of power by Nawaz Sharif by tinkering with the judiciary and the army.

4. Nawaz Sharif plundered Pakistan economically as if there were no tomorrow.

5. Finally, the Kargil crisis and its

aftermath created a rift between Nawaz Sharif and General Musharraf. Their mutual suspicion became so vicious that Nawaz Sharif sacked General Pervez Musharraf, replacing him with ISI Chief Maj. General Khwaja Ziauddin.

It is the last cause amongst those listed above which was directly responsible for the overthrow of the Nawaz Sharif Government.

## Sharif-Musharraf Rift

Since the Kargil war Nawaz Sharif and General Pervez Musharraf have been living under the mutual suspicion and the shadow of mistrust against each other. Along with this mistrust the Government and the army resorted to lies, falsity and duplicity to keep public discontent at bay. They announced to the world that Kashmiri Freedom fighters and Mujahideen had occupied the Kargil heights and not the Pakistani army regulars. Next they declared they were winning the war when Nawaz Sharif dashed to Washington where Clinton advised him to withdraw. Both these lies were nailed down when India began sending body bags to Pakistan. Initially the Pak authorities refused to claim the dead bodies of their regular soldiers, a majority of whom were from the North Light Infantry. But when their name, rank and number began to be flashed on TV and internet Pakistan was not only forced to admit its direct involvement but even the fact of its defeat became public.

Over the past four months Pakistan has been unable either to live with these lies or to own up to them and tell the truth. This had thrown its

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people into a nightmarish world of doubt suspicion and anger that had began to tear society apart. The coup d'état by General Pervez Musharraf was its inevitable outcome.

It is well known, why Nawaz Sharif went to Washington. The obvious reason was to look for a face saving device. His fear that the army was out of control was well founded. It was losing the war in Kargil. The Indian army had wrested back the Tololing heights, and two out of four of the Batalik ridges. On the very day that Nawaz Sharif flew to Washington, the Indian army recaptured Tiger Hills. In several sectors it had scaled the ridges behind the Pakistanis and cut their supply lines and escape routes. The Pakistani high command faced two choices—to let their soldiers be driven or killed from the heights or to use its airforce against Indian artillery batteries. But the Indian airforce is vastly superior to Pakistan's. It had incomparably greater economic staying power than Pakistan. Pakistan was clearly losing the war with only one option left—to use its nuclear arsenal against the Indian might, which would have meant mutually assured destruction. So Nawaz Sharif turned to President Clinton to give him another way out. The American mediation no doubt saved Nawaz Sharif's face. But ultimately its cost proved enormous for him. He could not admit, Pakistan was losing the war, yet the fact of withdrawal was publicly known. Therefore in the eyes of people he became a traitor. Musharraf too resorted to lies. First he refused to admit Pakistan's involvement in the war and denied that the dead bodies were of Pakistani soldiers. But as body bags mounted, he had no way out, but to accept the truth of involvement of Pakistani army.

On July 7, the Pakistan army PRO Brigadier Rashid Qureshi admitted that 178 Pakistani soldiers had been killed. On July 16, Musharraf admitted Pakistani army involvement in a BBC interview. A month later he handed out decorations for valour in the Kargil War. Musharraf was also forced to insist that Pakistan army had been

winning the war to save his face. Consequently, in the eyes of the people Sharif was the villain of the piece for having rushed to Washington when Pakistan was claimed as winning the war. Therefore, a falling out was only natural. Also under American pressure Nawaz Sharif was constrained to criticise and check Afghanistan's support for fundamentalism. Mujahideen and Islamic fundamentalist elements had gained an under current of sympathy in the Pakistan army as 'heroes of Kargil'. Therefore, Nawaz Sharif had estranged himself from the public and the army—a sure recipe for coup d'etat. Ordering Pervez Musharraf's ouster was only the last straw on camel's back.

### Twenty Five Years of Military Rule

Military rule in Pakistan is nothing new. (see the box below). Pakistan has been under military rule for not less than 25 years in its independent history. Pakistan's democracy is fragile and its Constitution has been scrapped and rewritten several times. As against this, military dictatorship is quite unthinkable in India. This is only quite possible given India's size, extent, tradition and the roots of strong democracy in this country. As against this the Islamic Republic of Pakistan is a Muslim country under the grips of

fundamentalist Muslim clergy. Religious laws are the laws of the State and Religion & Politics are inseparably intertwined. Martial rule under fanatic military commanders is not an alien value in an Islamic society. No wonder, no one in Pakistan has mourned the passing of Nawaz Sharif's Government. Indeed a Gallup poll taken a day after the army seized power reveals that most Pakistanis want an unelected interim Government of "clean technocrats" to rule over them for atleast two years rather than an unbridled constitutional democracy.

With the military coup in Pakistan, will India find it difficult to deal or interact with a man who has come to be called the Butcher of Kargil? An offer of dialogue by Pakistan after the coup was received with caution and scepticism in New Delhi. The Government virtually negated the possibility of immediate talks, expressing concerns over Pakistan being "effectively under martial law".

Perhaps the offer of talks by Gen. Musharraf to India was a signal to the rest of the world community that just because the generals have taken over, it has not made the place more unsafe. It was a tactical move to reassure the rest of the world not to worry, that things are getting back to normal.

## 25 YEARS OF ARMY RULE IN PAKISTAN

October 7, 1958 (10 years and 160 days)

Gen. Muhammad Ayub Khan, army commander-in-chief seizes power. Elects himself as President in 1960 to legitimise his rule. Relinquishes office as rioting grips East Pakistan.

March 25, 1969 (2 years and 270 days)

Maj. Gen. Muhammad Yahya Khan clamps martial law to rein in rioters. Sacks national and provincial assemblies. After the rout in Bangladesh, hands over power to Zulfikar Ali Bhutto.

July 5, 1977 (11 years and 43 days)

Gen. Muhammad Zia-ul-Haq army chief, topples Bhutto, arrests and later hangs him. Clamps martial law. Appoints Muhammad Khan Junejo as Prime Minister and lifts martial law on December 30, 1985. Dies in an air-crash on August 17, 1988.

Oct 12, 1999 (Continuing)

Gen. Pervez Musharraf, army chief deposes Nawaz Sharif in the aftermath of Kargil suspends provincial governments, Constitution and slaps emergency, but stops short of imposing martial law. Sharif and his brother put under house arrest.

On the other hand, if the army coup took place partly because of the army's dissatisfaction with Sharif's wilting under international pressure over Kargil, then the new army rule is likely to take a more confrontational stand with India. Musharraf is a hardliner. He has to be taken care of.

It took the world community all of two years to approach Zia-ul-Haq after he took over the reigns in '77 Pakistan watchers stress that India must remain vigilant.

According to some analysts, unlike the West, a return to democracy should not be India's demand on Pakistan at this time. The US may be worried about the future of democracy in Pakistan, but we have to live with these neighbours. We may not like to see democracy suffering in the region. But that is their internal problem. Let us go about our task of confidence building with our neighbour.

#### Nuclear Button

With a military dictator assuming charge as Pakistan's chief executive, India's main worry hinges on : Whose finger is on nuclear button ? With similar concerns being expressed by the Americans, experts fear the worst, some linking Musharraf to the extremist Taliban and fearing the bomb could now be in the hands of Islamic fanatics.

There are several views on the question of nuclear button in Pakistan. There is first of all fear and apprehension regarding the new army dispensation. Nuclear apparatus in Pakistan has always been under military power. This does not auger well for the peace and security in south Asia. As it is, some people there had declared during the Kargil War that they would not hesitate to use 'any force' to keep the Pakistani LOC intact.

The other view doesn't envisage this possibility because the nuclear apparatus was never under the control of civil authority. Clearly, a lot depends on Musharraf. Despite efforts to dub him a fundamentalist, he is also seen do a professional soldier. He is not going to push the nuclear button or attempt another Kargil - like operation soon, given the US reaction, the IMF's

#### Pervez Musharraf: Brief Profile

*Born in New Delhi in August '43, Musharraf joined the army in '64 after his family migrated to Pakistan and made Karachi their new home. A soldier's soldier is how he has most often been described as. And no other Chief of army staff had so many meetings with Sharif, than Musharraf had. Tongues had started wagging when Musharraf readily agreed to all the tasks given to him by Sharif, the most controversial being taking over the water and power development authority. But the camaraderie didn't last too long.*

*"Musharraf was my director - general of military operations. He wasn't a clerk. He was a professional soldier and I thought he was very courageous and brave. He'd been a commando and one who is a commando can take tremendous risks and think afterwards," was what Benazir Bhutto had to say when she heard about the army coup.*

*Musharraf's closest aides right now are his chief of general staff Lt Gen Muhammad Aziz and commander, 10 corps, Lt Gen Mahmood Ahmed. In fact it was with the help of these two and the corps Commander, Karachi, that Musharraf - sitting thousands of miles from general headquarters in Rawalpindi deployed the special services group within hours all over Pakistan.*

tough stance and his country's diplomatic isolation post Kargil.

Nuclear factor is a relatively recent thing in South Asia. No one in India knows the exact command structure of their N-bomb or if a command structure is even in place. Do they have a delivery system ? What is the range of such a missile, if exists ? These questions have no easy answers.

**International Reaction :** The USA and the western countries have condemned the coup. It is now the responsibility of the present government to get Pakistani economy back on rails, which is not an easy task given the international opposition to the military coup and suspension of IMF aid. Pakistan owes \$32 billion to its international creditors. Although Islamabad recently persuaded international donors to roll over \$3.3 billions in soft loans, those agreements have yet to be ratified and could easily unravel. IMF's own aid is suspended. Under the new rules of engagement of the IMF, much stricter controls over lending are being exercised with good governance being a key factor in loan packages. US legislators like Democrat Senators Gary Ackerman and Republican Benjamin Gilman have argued for punitive sanctions against the new regime of Gen. Musharraf.

Meanwhile, even as Sharif returns to Raiwind, his family estate; he has reasons to worry. The evidence piling against him is frightening. Already,

Brig Reshid Qureshi, the Director General of the Inter-Services Public Relations, says that Sharif could be tried for treason for trying to eliminate Musharraf by not allowing his plane to land.

**Answer the following Questions on the basis of the above Article.**

1. The latest overthrow of the civilian regime in Pakistan took place on

- (1) Jan 15, 1999
- (2) August 11, 1999
- (3) October 12, 1999
- (4) October 18, 1999

2. Who is the new ruler of Pakistan?

- (1) Gen Sharif Musharraf
- (2) Brig Rashid Qureshi
- (3) Gen Pervez Alam Khan
- (4) General Pervez Musharraf

3. Dawn is a newspaper published from:

- (1) Pakistan (2) India
- (3) Bangladesh (4) USA

4. For approximately how many years has Pakistan been under military rule since its independence

- (1) 10 years (2) 20 years
- (3) 25 years (4) 30 years

5. Identify the correct statement amongst the following

- (1) Pakistan is a secular state
- (2) Pakistan is an Islamic state
- (3) Pakistan is a Muslim state
- (4) Pakistan is a Fundamentalist state

Ans.: 1.(3) 2.(4) 3.(1) 4.(3) 5.(2)



# The Act of 1858

After the elections of 1857 in Britain, Lord Palmerston assumed the office of Prime Minister. While introducing the India Bill in the House of Commons on February 12, 1858, he said, "The principle of our political system is that all administrative functions should be accompanied by ministerial responsibility to the Crown; but in this case the chief functions in the Government of India are committed to a body not responsible to Parliament, not appointed by the Crown, but elected by persons who have no more connection with India than consists in the simple possession of so much stock". So, according to Lord Palmerston, the first defect of the Company's rule was its utter irresponsibility. Another defect pointed out was the cumbrous, complex and irrational nature of the system of Double Government. Palmerston's Bill went through the second reading but before it could become law the ministry changed and Palmerston was succeeded by Lord Derby, with Disraeli as the Chancellor of the Exchequer. Disraeli introduced a new India Bill but it was ridiculed by Palmerston who was now in the opposition. The Act for the Better Government of India as passed was based on a series of resolutions passed by Parliament. It received the royal assent on August 2, 1858.

Officially "An Act for the Better Government of India", the Act of 1858 is regarded as a milestone in the constitutional history of British India. The Charter Act of 1853 had clearly laid down that the Company was to retain the territories and the revenues in India in trust for the Crown not for

any specified period as preceding Charter Acts had provided but only until Parliament should otherwise direct. Therefore, the Crown was potentially equipped to take over the administration from the Company. Moreover, the crisis of 1857-58 gave a fillip to the demand that a trading company should not be allowed to continue as a political power as the Revolt of 1857 was considered a result of the deliberate mistakes of the East India Company.

#### MAIN PROVISIONS OF THE ACT

1. The Act of 1858 provided that India henceforth was to be governed by and in the name of the Crown through one of the principal Secretaries of State assisted by a Council of fifteen members, known as India Council, primarily an advisory body. The Secretary of the State received the powers so long enjoyed by the Court of Directors and the Board of Control. Thus, the Act terminated the system of "Double Government" introduced by Pitt's India Act of 1784. The Act of 1858, however, made no change in the actual administration of the country but on the contrary it laid down that all Acts and provisions which had been enforced from time to time were to continue in future. The only change it made was that it transferred the power and landed property of the Company to the Crown.

2. The Secretary of State was a member of the British Cabinet and as such was responsible to the British Parliament. Of the 15 members of the India Council of the Secretary of State, eight were to be appointed by the Crown and seven by the Court of Directors. The Act also provided that

at least half of these members must have served in India for not less than ten years and they must not have been away from the country for more than ten years at the time of their appointment. The vacancy among the Crown nominees would be filled up by the Crown, while among those elected by the Court of Directors would be filled up by the India Council by election. The members would continue in office during good behaviour and would be removed only on petition, to the Crown by both the Houses of Parliament.

The Act declared the Secretary of State for India as a corporate body who could sue and be sued in England and in India.

3. Role of the India Council : The Council was merely an advisory body and the Secretary of State for India was not bound to consult it, except in matters relating to expenditure of Indian revenues and Imperial Services in which case their advice was binding on him. The Council was to meet once every week in which the Secretary of State was to place all his orders to be sent to India. All the meetings of the Council were presided over by the Secretary of State. The quorum of the meeting was five.

4. The Secretary of State for India, who presided over the Council meetings, was also empowered to override the view of the majority. But whenever he did so, he had to record in writing the reasons for overriding the majority decision of the Council. He also enjoyed a casting vote to be exercised in the event of equal division in the Council on any issue. He was, however, bound by the decisions of the Council in matters like:

(a) appropriation of Indian revenues and property,

(b) issuing of securities of money and

(c) sale or mortgage of property, contracts etc.

5. The Secretary of State for India could even send his secret orders, concerning the making of war, peace or negotiations to Government of India without taking the Council into confidence.

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6. Appointments to the Covenanted Civil Service were to be made by open competition under the rules laid down by the Secretary of State with the help of Civil Service Commissioners. Thus, the Secretary of State for India was also given power to frame rules and regulations for recruitment to Indian Civil Service.

7. The Act of 1858 required the Secretary of State for India to lay annually before the British Parliament a financial statement of expenditure and revenues of India. The Parliament could also ask him questions relating to India, criticise him on the charge of inefficiency.

8. The Secretary of State for India and his Council were empowered to frame certain rules regarding the guidance of Indian Government in all its dealings with the Crown and the Government in all its dealings with the Crown and the Government of Britain. The Secretary of State for India, henceforth, was to control all the legislative and financial measures, various projects concerning the railways and construction of public works, creation of new jobs and policy matters of the Government of India.

9. The Governor-General of India received the title of Viceroy of India. (Governor-General and the Viceroy was the same person : when he dealt with the British Provinces, he was known as Governor-General but when he dealt with Indian States, he was called Viceroy because he acted as Crown's representative in that capacity).

10. The Act of 1858 also provided for the transfer of military and naval forces of the East India Company to the Crown.

11. The Act empowered the Crown to appoint the Viceroy of India and Governor of Presidencies. It vested in the Viceroy the power to appoint Lieutenant-Governors with the approval of the Crown. The power of appointing the members of Council both at the Centre and the Provinces was given to the Secretary of State-in-Council. The Council was also empowered to exercise control over the civil and military servants of the Crown.

Thus, the administration of India was not only made unitary but rigidly centralised by the Act of 1858. Though the territories were divided into provinces with a Governor or Lieutenant Governor aided by his Executive Council, the provincial governments were mere agents of the Government of India and had to function under supervision, direction and control of the Viceroy in all matters relating to the governance of the province. There was no separation of functions and all authority was vested in the Governor-General-in-Council responsible to the Secretary of State for India and ultimately to the British Parliament.

One great significance of the Act of 1858 was that it "closed one great period of Indian history and ushered in another great era- the direct rule of the Crown. It rang the death-knell of the trading Company which was born in 1600 AD."

It has been rightly observed that the assumption of the Government of India by the Crown in 1858 was "rather a formal than a substantial change," though the notorious rule of the East India Company came to an end. Since the introduction of the Pitts India Act in 1784, the Crown was declared as the real sovereign, while the position of the Company was only a titular head. The British Parliament was responsible for any wrong-doings in India. Yet, the authoritarian nature of British rule was not changed and it is wrong to assume that the Act of 1858 was for the better government of India. Indians were not benefited from the transfer of the Government and revenues of India from the Company to the Crown. The keenness of the British Parliament to know about India was greater during the Company's rule but it subsided with the appointment of the Secretary of State to run the administration of India. It may sound paradoxical but nevertheless it is true that the control of Parliament over Indian affairs slackened from the very time it acquired it. The British Parliament was content with leaving the Secretary of State alone to act as he pleased. The

members of Parliament thought that nothing was to be gained by interfering in Indian affairs and consequently the Secretaries of State enjoyed full freedom in managing the affairs of India.

### EXPECTED QUESTIONS

1. In which year a submarine cable was laid completely through the Red Sea between England and India?

- (1) 1868
- (2) 1875
- (3) 1870
- (4) 1865
- (5) None of these

2. By the Charter Act of 1853 the number of members of the Court of Directors was reduced to 18 from

- (1) 24
- (2) 26
- (3) 20
- (4) 22

(5) None of these

3. When was Sind annexed to the Company's territories?

- (1) 1849
- (2) 1845
- (3) 1844
- (4) 1843
- (5) None of these

4. The Company annexed Punjab in the year.

- (1) 1843
- (2) 1849
- (3) 1844
- (4) 1843
- (5) None of these

5. Who was the first Viceroy of India?

- (1) Lord Canning
- (2) Lord Disraeli
- (3) Lord Derby
- (4) Lord Dalhousie
- (5) None of these

6. The India Bill received royal assent on

- (1) 18 February, 1858
- (2) 18th April, 1858
- (3) 2nd August, 1858
- (4) 2nd July, 1858
- (5) None of these

### SHORT ANSWERS

- |        |        |        |        |
|--------|--------|--------|--------|
| 1. (3) | 2. (1) | 3. (4) | 4. (2) |
| 5. (1) | 6. (3) |        |        |



# Minerals in India

### COPPER ORE

It is believed that copper was one of the earliest metals used by men because it often occurs in a pure state and secondly it is very easily worked. Copper is a malleable and ductile metal and hence it is widely used in electrical industry- refrigerators, air-conditioning apparatus, cables, telephones, radio, television, electric locomotives-water pipes, for mixing it with iron, nickel, gold and aluminium for manufacture of stainless steel, monel metal, rolled gold and duralumin. It is also used in making coins and domestic utensils.

Copper is a non-ferrous metal and it may occur in native (pure) state and in chemical combinations with iron, gold, silver, lead and sulphur. Native copper is associated with igneous, sedimentary and metamorphic rocks. The main minerals for copper are sulphides (chalcopyrite, chalcocite and bornite), oxide (cuprite) and carbonates (malachite and azurite). The copper ore generally occurs as veins, dissemination and as bedded deposits.

**Distribution :** The Singhbhum district in Bihar is the leading copper ore producing area in the country. The major occurrences in this district are at Mosabani, Rakha, Dhabani, Rajdah, Surda, Pathargara, Roam-Siddheshwar, Tamapahar, Nandup and Turamdh. The beneficiation plant is at Maubhandar and is owned by Indian Copper Corporation Limited.

Copper ore has also been

reported in Baragundah Jaradih, Parasnath Hasatu and Barkathana in Hazaribagh district; Bairakhi in Santhal Parganas and some localities in Gaya and Palamu districts.

In Rajasthan, the Khetri copper belt extends for about 80 km, from Singhana (Jhunjhunu district) to Raghunathgarh (Sikar district). Other deposits in the state occur in Alwar (kho-Dariba), Udaipur (Debari), Bhilwara, Churu, Jhalawar and Banswara districts.

In Andhra Pradesh, the important copper belt lies in Agnigundala (Bondalamottu, Nallakonda and Dhukonda) in Guntur district. Minor deposits are reported from Kurnool (Ganikalava, Gümankonda and Somalapilli), Nellore (Garimainpenta) and Nalgonda districts.

In Madhya Pradesh, a large deposit has been found around Malanjkhand in Balaghat district. It is the first large open-cast mining project. It is developed by Hindustan Copper Limited.

**Other Minor Deposits :** Mamandur area in South Arcot district in Tamil Nadu; Tauneswasha in Chandrapur district in Maharashtra; Kalyandi in Hasan district in Karnataka; Kulu Valley in Kangra district in Himachal Pradesh; Almora district in Uttar Pradesh; Jalpaiguri and Darjeeling districts of West Bengal and Sikkim.

### MANGANESE ORE

Manganese is an important mineral which is used in making iron

and steel and it acts as basic raw material for manufacturing its alloy. Manganese is also used in the manufacturing of dry battery, porcelain enamel, building bricks, glazed pottery, plastic, colouring and decolouring glass, welding rods, mining equipment and so on.

The common manganese ore minerals are braunite ( $Mn_2O_3$ ), pyrolusite ( $MnO_2$ ), psilomelane ( $MnO_2 \cdot BaO \cdot H_2O$ ) and magnetite. The country's most important ore deposits occur in the form of sedimentary stratified metamorphic deposits in the Dharwar system. The manganese deposits are generally either syngenetic (sedimentary) as in Madhya Pradesh and Maharashtra; or of epigenetic (residual enrichment and oxidation) origin as in Bihar, Orissa, Goa and Karnataka or lateritic and supergene enrichments associated with the first two groups.

Indian manganese is of rich quality with mineral contents of 40 to 60 per cent as compared to Russia (mineral content 45%), Ghana (41 to 50%) and Brazil (33 to 50%).

#### Distribution :

India is the third largest producer of manganese, next to Russia and Ghana.

In Madhya Pradesh, the manganese ore is associated with the pre-Cambrian Sausar group of rocks; the important minerals being braunite, pyrolusite and psilomelane. The important producers in Madhya Pradesh are districts of Balaghat (Katgaria, Langur, Varwali, Netra, Tirodi,

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Baljari, Salwa, Jam, Sukali, Mirangpur, Ukwa, Kochawahi and Chikpara); Chhindwara (Butkum, Goti, Sitapur, Kachidhana and Mahiwana); Jhabua (Thandala, Mandhi, Tumdia-Bandiar, Amlaimal); Jabalpur and Dewas districts.

In Maharashtra manganese is mined in Nagpur district (Ramdongri, Kodergao, Gumgaon, Satak, Kandia, Mansar, Lohardongri, Mogaon, Manigaon, Gondadob, Parsoda, Baldongri, Bhandarkhori) and Bhandara district (Kurnura, Kusumbah, Pachala-Chilka, Bujrum, Asolpem, Phitla, Songi Kargi, Sitasaongi).

In Andhra Pradesh important deposits occur near Kodur, Devada, Garbham, Sonpuram, Mamidipill, Batuva, Garividi and Sivram, all in Srikakulam district. Samli deposits also occur at Sankarapalem and Kothavala in Vishakhapatnam district.

In Bihar, important producers in Singhbhum district are Birmitrapur and Kalenda. Some manganese is also mined in Gaya, Hazaribagh, Dhanbad and Monghyar districts.

In Orissa the important producers are Bhutura, Patmuda, Naktipalli and Jamunkria in Sundargarh district; Nishikhali in Kalahandi district, Baijolla and Kutinga in Koraput district; Jamda, Koira, Bambari, Bhadrashahi and Dhubna in Keonjhar district. Small deposits are found in Dhenkanal, Ganjam, Cuttack and Mayurbhanji districts.

Gujarat : Panchmahal district (Jatvad, Shivrajpur, Dohad, Bhat and Barnakua); Vadodara district.

Karnataka : Kumsi, Shankargudda, Hoshalli, Shidharhalli, between Itigehalli and Belur in Shimoga district; Sandur, North Kanara and Tumkur districts.

Rajasthan : Bahswara, Udaipur and Pali districts.

Goa : Pernem and Bardez areas.

### CHROMITE ORE ( $Fe Cr_2O_4$ )

Chromite is an oxide of iron (32%) and Chromium (68%). Chromite is the most important ore for producing chromium metal. It is widely used in metallurgical, refractory and chemical industries. Ferro-chrome, an alloy of iron and chromite, is used for the manufacture of non-abrasive and non-corrosive special steels. Chromium and nickel form the base for the manufacture of stainless steel. As chrome-bricks are resistant to corrosion and can withstand high temperature, they form neutral refractories used for lining furnaces. Chromite is also used for manufacturing chromates and bichromates which in turn are extensively used as disinfectants and in tanning, dyeing, pigment, ceramic, glass and several other industries.

All the chromite deposits are associated with ultra basic rocks like dunite, peridotite and serpentine which occur as stratified sheets, unsoid masses or disseminations.

#### Distribution :

India's position in the production of chromite in the world is rather negligible, the leading producers are Russia, South Africa, Philippines, Zimbabwe and Turkey.

The state of Orissa is by far the most important producer of chromite accounting for 90 per cent of the country's total production. The most important deposits occur in Sukinda area in Cuttack district; Nausahi area in Keonjhar district and Marauabali and Maulabhaya areas in Dhenkanal district.

In Karnataka, ore occurs in Hasan district (Byrapur, Chiknalli, Pensamudra, Bhaktarahalli, Jambur and Tagadur); Mysore district (Kadkola, Talur, Gorur, Dodkanya, Sindhuvali and Dodkattur areas);

Chitradurga, Chikmaglur, Mandya and Shimoga districts.

In Maharashtra, chromite occurs around Kankauli and Vagda areas in Ratnagiri district, and Taka, Belgatta and Pauni areas in Bhandara district. Bihar : Rorburu, Kiriburu, Kittaburu and Chittangburu hills in Singhbhum district.

Tamil Nadu : Sittampundi in Salem district.

Andhra Pradesh : Kondapalli in Krishna district and in Dendkuru and Gauravaram in Khammam district.

### PYRITE ( $FeS_2$ )

Pyrite is a sulphide of iron. It is the chief source of sulphur in India. Sulphur is a very useful mineral used for the manufacture of sulphuric acid which in turn is utilised in fertiliser, chemicals, steel, rayon, petroleum and many other industries. Elemental sulphur is used in the manufacture of explosives, matches, insecticides, fungicides and for vulcanising rubber.

#### Distribution

Important producers are Bihar (Rohtas district), Karnataka (Chitradurga and North Kanara districts), Tamil Nadu (North Arcot and Nilgiri districts), Himachal Pradesh, Rajasthan (Sikar district), Meghalaya (Khasi and Jaintia), Uttar Pradesh (Mirzapur, Almora, Garhwal districts), Orissa (Mayurbhanji and Sundargarh districts) and Madhya Pradesh (Bilaspur, Chhatarpur, Chhindwara, Durg and Sarguja districts).

### BAUXITE ORE ( $Al_2O_3 \cdot 2H_2O$ )

Bauxite is an oxide of aluminium and it is used as a raw material for making aluminium. It is not a specific mineral but a rock consisting mainly of hydrated aluminium oxide. It is a clay-like substance which is pinkish, whitish or reddish in colour depending on

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the amount of iron content. Bauxite deposits were formed mainly in Tertiary period.

### Distribution :

About 36 percent of India's total production of bauxite is contributed by the state of Bihar. The important deposits are located at Bagrupahar, Seradang, Pabhrapat, Jardapahar, Maidanpat and Manduapat in Ranchi district. In Palamu district the important deposits are located at Jamirapat, Ranchongpat, Orsapat and Joradumar.

In Madhya Pradesh there are three important bauxite producing areas :

- (i) the Amarkantak plateau region comprising Sarguja, Raigarh and Bilaspur districts,
- (ii) the Malikal range of hill in the Bilaspur, Shahdol, Durg, Mandla and Balaghat districts and
- (iii) Katni and Jabalpur districts.

Gujarat : Bhavnagar district, Junagarh district, Amreli district, Kaira district - (Kapadvanj), Jamnagar district (Bhatia, Kenedi, Lamba and Virpur) and Kutch district.

In Maharashtra, some of the largest deposits of India are found at Udgiri, Dhangarvadi, Radhanagari and Idernganj plateaus in Kolhapur district. Other deposits occur in the districts of Thana, Kolaba, Ratnagiri and Satara.

In Tamil Nadu, bauxite deposits are found in four areas :

- (i) In Kotagiri and Curzon valley areas and near Ootacamund in the eastern portion of the Nilgiri Hills,
- (ii) plateau region of the Palni and Kodaikanal hills in the Madurai district.
- (iii) Shevaroy hills near Yarcund in the Salem district and
- (iv) In part of the Kollaimalai hill.

In Karnataka, the principal deposits occur in the Belgaum

district near Sidh Pahar, Jamboil and Betul and in Magalgad plateau; near Kasar Soda range of hills, Kalanandigarh area and the Boknur-Navge ridge. In South Kanara district, aluminium laterite is found near Doddahera.

In Orissa, bauxite deposits occur in Kalahandi district on the Koraput hill, Sambalpur and Bolangir districts.

In Andhra Pradesh, bauxite has been discovered in the Anantagiri plateau and Chintapalli area of Vishakhapatnam district.

In Jammu and Kashmir high grade bauxite occurs near Chakar, Sangar Marg, Jangagali, Panhasa, Sakhwalgali in the Riasi and Udhampur tehsils and near Khandir and Thakalia in Poonch district.

In Uttar Pradesh, deposits of bauxite occur at Dagrahin, Turkaha, Chhachhat, Ransajahi and Hasria area in Banda district. Some deposits also occur in Varanasi, Allahabad and Mirzapur districts.

### EXPECTED QUESTIONS

1. Pyrolusite, an oxide of Manganese, is used for
  - (1) glazing pottery
  - (2) making coloured bricks
  - (3) making manganese salts
  - (4) Both (1) and (2)
  - (5) None of these
2. Copper is a
  - (1) ferrous metal
  - (2) non-ferrous metal
  - (3) Both ferrous and non-ferrous metal
  - (4) Neither ferrous nor non-ferrous metal
  - (5) None of these
3. Which of the following is not a sulphide ore of Copper?
  - (1) Cuprite
  - (2) Chalcopyrite

(3) Chalcocite

(4) Bornite

(5) None of these

4. Bauxite is used mainly for production of

(1) copper

(2) bornite

(3) aluminium

(4) pyrite

(5) None of these

5. Which of the following states is the leading producer of bauxite?

(1) Rajasthan

(2) Bihar

(3) Orissa

(4) Madhya Pradesh

(5) None of these

6. India exports chromite mainly to

(1) Japan

(2) Russia

(3) Germany

(4) USA

(5) None of these

### SHORT ANSWERS

1. (4) 2. (2) 3. (1) 4. (3)  
5. (2) 6. (1)

To be continued....

•••

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# The Indian Judiciary-II

Articles 132 to 135 of the Constitution deal with ordinary appeals to the Supreme Court. No appeal lies under those Articles unless the conditions specified there under are fulfilled. The power given by Article 136 is, however, in the nature of a special or residuary power, which is exercisable outside the purview of ordinary law in cases where the needs of justice demand interference by the higher court of the land. It vests in the Supreme Court plenary jurisdiction in the matter of entertaining and hearing appeals by granting special leave against :

- (i) any judgement, decree determination or order;
- (ii) in any cause or matter;
- (iii) passed or made by any court or tribunal.

As compared with the provisions of Article 132, 133 and 134, the jurisdiction conferred under Article 136 has the following distinguishing features:

- (i) The power to grant special leave is not confined to judgement, decrees or final orders of the High Court.
- (ii) Appeals shall be from orders or determinations of all courts or tribunals in the territory of India except those mentioned in clause (2).
- (iii) There is no condition that the order of the court should be a final order. Hence, appeals against interlocutory orders are permissible.
- (iv) An appeal shall lie from an order or determination of a court or a tribunal.
- (v) The order or determination of a court or tribunal may be in any cause or matter.

"By virtue of this article we can grant special leave in civil cases, in criminal cases, in income tax cases, in cases which come up before different kinds of tribunals, and any variety of other cases. The only

conditions are firstly, the determination or order sought to be appealed from must have the character of a judicial adjudication. Purely administrative or executive directions is not contemplated to be made the subject matter of appeal to the Supreme Court. Secondly, the authority whose act is complained against must be a court or tribunal. Unless both the conditions are satisfied, Article 136, Clause (1) cannot be invoked.

Article 136, as shown above, is worded in the widest possible terms. It confers a wide discretion on the Supreme Court to entertain appeals in suitable cases not otherwise provided for by the Constitution. It is in the nature of a residuary or reserve power and, therefore, it cannot be defined exhaustively. Decided cases; however, establish that the Supreme Court will grant "special leave to appeal in exceptional cases — cases where grave and substantial injustice has been done by disregard to the forms of legal process or violation of principle of natural justice or otherwise. In express terms, Article 136 does not confer a right of appeal on a party as such but it confers a wide discretionary power on the Supreme Court to grant special leave to appeal in suitable cases. Though it is a residuary power and extraordinary in its terms, it shall be exercised by the Supreme Court in accordance with the well-established judicial principles, or the well-known norms of procedure which have been recognised for long as precedents. It is true that the strictest vigilance over abuse of the process of the court, especially at the level of the Supreme Court, should be maintained and ordinarily a private party other than the complainant, should not be permitted to file an appeal. It is a well-settled practice of the Supreme Court that except where there has been an illegality or an irregularity of procedure or a violation of the principles of natural justice resulting in the absence of a fair trial or gross miscarriage of justice is caused.

As shown above, special leave to

appeal under Article 136 is not limited to orders or determinations of a court of law, but includes a 'tribunal' also. A tribunal is a body or authority, though not a court in the strict sense, which is invested with the judicial power to adjudicate on question of law or fact affecting the rights of a citizens in a judicial manner. Appeals have been entertained under this article, for example, against determinations of Industrial Tribunal, Central Administrative Tribunals, Election Commission, Railway Rates Tribunal, Labour Appellate Tribunal, Income Tax Appellate Tribunal, Custodian-General acting under section 27 of the Administrative of Evacuee Property Act, authority under the Payment of Wages Act, Central Government acting under Section 111 of the Companies Act and Central Government exercising powers of revision under Section 30 of the Mines and Minerals (Regulation and Development) Act, 1957. The court's power to grant special leave is not taken away even when it is declared by the law that the order or decision of the tribunal shall be conclusive. The grounds on which the Supreme Court would normally interfere with decisions arrived at by tribunals can be classified under the following categories, namely :-

- (i) where the tribunal acts in excess of the jurisdiction conferred upon it under the statute or regulation creating it or where it ostensibly fails to exercise a patent jurisdiction;
- (ii) where there is an apparent error on the face of decision;
- (iii) where awards are made in violation of principle of natural justice causing substantial and grave injustice to parties; and
- (iv) where the tribunal has erroneously applied well-accepted principles of jurisprudence.

An appeal admitted under Article 136 may not be allowed to be withdrawn unless adequate and valid reasons to the satisfaction of the court are furnished. And if the Court is not

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satisfied with the reasons it may refuse withdrawal of appeal and decide it on merit.

Clause (2) of the Article 136 admits an exception when it says that the provision for special leave to appeal shall not apply to any judgement, determination, sentence or order passed or made by any court or tribunal constituted by or under any law relating to the armed forces. These are the only courts or tribunals which are expressly exempted from the purview of Article 136.

According to the Article 137 the Supreme Court has expressly been given the power to review its judgement. The power is exercisable in accordance with and subject to the rules of the Court made under Article 145. The rules permit the review of a judgement by the Supreme Court on the grounds mentioned in order 47 Rule 1 of the Civil Procedure Code. Hence a review will lie in the following three grounds :-

- (i) discovery of new and important matters or evidence;
- (ii) mistake or error apparent on the face of the record; and
- (iii) any other sufficient reason

Under Article 138, Parliament is authorised under this article to invest the Supreme Court with additional jurisdiction with respect to the enforcement of any of the matters enumerated in the Union List. The enlargement of powers contemplated here may be in relation to the original or appellate jurisdiction of the Supreme Court.

According to Article 139, the Supreme Court has power to issue directions, orders or writs in the nature of Habeas Corpus, mandamus, prohibition, quo warranto and certiorari for the enforcement of the rights conferred by Part III of the Constitution.

According to Article 141, the law declared by the Supreme Court shall be binding on 'all courts' in the territory of India. The expression 'law declared' is wider than the 'law found or made' and implies the law creating role of the Court. The expression 'all courts' obviously means courts other than the Supreme Court. The decision of the Supreme Court is binding on the High

Court and it cannot ignore it on the ground that relevant provisions were not brought to the notice of the Supreme Court, and hence its decision is not binding.

Normally the function of a court of law is to answer questions of law or fact when properly raised before it in a dispute between the parties. Article 143, however, confers a particular jurisdiction, commonly called the consultative or advisory jurisdiction, on the Supreme Court to give its opinion on questions unconnected, with a pending case. The President has been authorised by Article 143 to refer to the Supreme Court a question of law or fact which in his opinion is of such nature and of such public importance that it is expedient to obtain its opinion upon it. The words of Article 143 are quite wide and there is no condition that it is only in respect of matters falling within the powers, functions and duties of the President that it would be competent to him to frame questions for the advisory opinion of the Supreme Court. The only conditions are :

- (i) that he should be satisfied that a question of law or fact has arisen or is likely to arise;
- (ii) that he should also be satisfied that such a question is of such a nature and of such public importance that it is expedient to obtain the opinion of the Court on it. A question of law which has already been decided by the Supreme Court in the exercise of its judicial powers cannot be referred to the Court under Article 143. The Court cannot sit in appeal against its earlier decisions in the exercise of its advisory jurisdiction under Article 143. The plain duty and function of the Supreme Court is to consider the question on which the President has made the reference and report to the President its opinion. If for some reason, the court considers it not proper or possible to answer the question, it would be entitled to return the reference by pointing out the impediments. It is not necessary that the question on which the opinion of the Supreme Court is sought must have arisen actually. It is competent for the

President to make a reference at an anterior stage, namely when the President is satisfied that the question is likely to arise. The satisfaction whether the question has arisen or is likely to arise, the satisfaction whether the question has arisen or is likely to arise and whether it is of such a nature and of such public importance that it is expedient to obtain the opinion of the Supreme Court, is a matter essentially for the President to decide. Whenever a reference is made to the Supreme Court under Article 143, a case should be taken to frame specific questions for the opinion of the Court. Reference should be specific and not general and vague. The Supreme Court by answering the reference does not encroach upon functions and privileges of Parliament. The President is empowered to make a reference to the Supreme Court for its opinion, and the Supreme Court is under constitutional obligation to consider the reference and report thereon to the President. In doing so, it does not encroach upon any particular function or privilege of Parliament. The Supreme Court by answering a reference does not abrogate Article 32. The Supreme Court should not decline to answer the reference on the ground that it raises a purely political question. Article 143 (2) deals with cases in which the President may refer a dispute to the Supreme Court, notwithstanding the prohibition prescribed by the provision to Article 131. If such a reference is made, the court shall after such hearing as it thinks fit, report to the President its opinion thereon. It will be noted that where, as in the case of reference made under Article 143(2), it is the constitutional obligation of the Supreme Court, to make a report on that reference embodying its advisory opinion, in a reference under Article 143 there is no such obligation. The Supreme Court has the inherent jurisdiction to regulate its proceedings relating to the conduct of persons appearing before it, in and out of court, in so far as such conduct

## ARTICLE

has a bearing on their professional relations and ethics. Apart from this inherent jurisdiction, the Constitution in Article 145 itself authorises the Court to make rules for regulating generally 'the practice and procedure of the Court', which must be construed in its fullest amplitude and must include regulating the conduct of all persons appearing before the court, in relation to the business of the Court. The rule-making power of the Court is exercisable subject to the approval of the President. The rules governing the practice and procedure of the Supreme Court must be consistent with the other provisions of the Constitution.

Article 146 is intended to secure the independence of the Supreme Court in certain matters from the control of the executive and the legislature. Appointments of officers and servants of the Supreme Court are made by the Chief Justice of India or such other judges or officers of the Court as he may direct. But the President can by rule prescribe that certain appointments can only be made after the consultation with the Union Public Service Commission. The administrative expenses of the Supreme Court are charged upon the Consolidated Fund of India.

The Judiciary in States consists of a High Court and a system of courts subordinate to the High Court. Article 214 says that there shall be a High Court in each State. However, under Article 231 (1) Parliament can establish by law a common High Court for two or more States or for two or more States and a Union Territory. The High Court stands at the head of the judiciary in the State. According to Article 215, every High Court is declared to be a court of record. There are two characteristics of a court of record:

- (i) the records of such a court are admitted to be of evidentiary value and they cannot be questioned when produced in a Court, and
- (ii) it has the power to punish for contempt of itself. The power to punish for contempt of Court is a special power derived from Article

215 and not from the Contempt of Courts Act, 1971.

No Act of legislature could take away that power and confer it afresh on the High Court by virtue of its own authority. According to Article 216, each court is to consist of such number of judges as may be deemed necessary by the President. The Constitution does not fix any maximum number of judges of a High Court. But the President is under a constitutional obligation to review the strength of each High Court vis-a-vis the arrears of cases pending therein. However, no mandamus can lie to compel the President to increase the strength.

Article 217 deals with the mode of appointment of judges of High Courts, their tenure and their qualifications. Its procedure is mandatory and applies to appointment of regular judges as well as to the appointment of Additional Judges under Article 224. The consultation with each of the three constitutional functionaries, the Chief Justice of the High Court, the Governor of the State and the Chief Justice of India must be a 'full and effective consultation'. In such consultation the President can override the opinion given by such functionaries and in case of difference of opinion should be accepted and whether appointment should be made or not. The age of retirement of a High court judge is 62 years but he can be removed by the President for proved misbehaviour or incapacity on an address to him by both Houses of Parliament. He cannot hold office after he attains the age of 62 years. A citizen of India who has held a judicial office for at least ten years, or who has been an advocate of at least ten years' standing of a High Court, is qualified to be appointed a Judge of a High Court. There is no constitutional bar against a judge of the High Court taking an office other than that of a judge, on appointment by the Central or State Government, such as chairperson or member of a Commission.

Article 218 declares that the provisions of clauses (4) and (5) of Article 124 relating to the procedure for removal of a judge of the Supreme Court shall be made applicable in relation to a High Court. Thus a judge of the High Court shall not be removed

from his office except by an order of the President, passed after an address by each House of Parliament supported by a majority of the total membership of that House and by a majority of not less than two-thirds of the members of that House present and voting, has been presented to him in the same session for such removal on the ground of proved misbehaviour or incapacity. According to Article 219 the oath which the judge takes under this article requires him (inter-alia) to bear true faith and allegiance to the Constitution of India and to perform the duties of his office without fear or favour, affection or ill-will and to uphold the Constitution and the laws. Salaries and allowances of judges have been charged on the Consolidated Fund of the State and hence are non-votable. Their pensions are charged on the Consolidated Fund of India. According to Article 222, the President is empowered after consultation with the Chief Justice of India, to transfer a judge from one High Court to another High Court.

Under Article 227 every High Court has the power of the superintendence over all courts and tribunals throughout the territory in relation to which it exercises jurisdiction. Under Article 235 the High Court has disciplinary jurisdiction over subordinate court. It has been held that the Government had no jurisdiction to take disciplinary action against a District Judge. It is the High Court alone which is competent to exercise disciplinary power against a judge of the inferior court.

Article 226 of the Constitution confers a new power on all the High Courts of India. It enables them to issue to any person or authority, including in appropriate cases any Government, orders or writs, including writs in nature of Habeas Corpus, mandamus, prohibition, quo-warranto and certiorari, for the enforcement of any of the rights conferred by Part III and 'for any other purpose' i.e., for the enforcement of any other legal right. The power conferred on the High Court under Article 226 (1) can, in a proper case, be exercised even against the legislature.

—SANJAY KUMAR



# COMPUTER PERSPECTIVE



## COMPUTER SOFTWARE

The terms hardware and software are frequently mentioned in connection with computers. Hardware is the jargon term given to the machinery itself and to the various individual pieces of equipment. It refers to the physical devices of a computer system. Thus, the input, storage, processing, control and output devices are hardware. When the hardware is linked together to form an effective working unit we have a computer installation. In fact, what we have described so far in the previous chapters is actually the hardware of computer systems. The term software is being discussed here.

### What Is Software

Software refers to the set of computer programs, procedures, and associated documents (flow charts, manuals etc.) that describe the programs and how they are to be used. To be precise, software means a collection of programs whose objective is to enhance the capabilities of the hardware machine.

### Relationship between Hardware and Software

In order for a computer to produce useful output, the hardware and the software must work together. Thus, there is a special relationship between hardware and software. Both are complimentary to each other. Nothing useful can be done with the computer hardware on its own and software cannot be utilised without supporting

hardware.

To take an analogy, a cassette player and the cassettes purchased from market are hardware. However, the songs recorded on the cassettes are its software. Hardware is a one-time expense whereas, software is a continuing expense. It may also be noted that different softwares can be loaded and run on the same hardware to perform different types of jobs just as different songs can be recorded one by one on the same cassette player.

### Types of Software

Computer software is normally classified into two broad categories : application software and systems software: Application software, also known as an application package, is a set of one and more programs designed to carry out operations for a specified application. For example, a pay role package produces payslips as the major output and an application package for processing examination results produces marksheets as the major output along with some other statistical reports. Similarly, a program written by a scientist to solve his particular research problem is also an application software. The programs that constitute an application package are known as application programs and the person who prepares application programs is known as an application programmer.

Specific purpose application packages have also been developed for specialized areas, such as banking, hospital administration, insurance, publishing, manufacturing, science and engineering etc. In fact, many software companies have started to offer computer systems to go along

with their software as turn key systems for specific industry needs. Development of specific purpose application packages has expanded along with the increased use of computers in non-financial operations.

System software, also known as a systems package, is a set of one or more programs, designed to control the operation of a computer system. These programs do not solve specific problems. They are general programs written to assist humans in the use of the computer system for performing tasks, such as controlling all of the operations, required to move data into and out of a computer and all the steps in executing an application program. In general, system packages support the running of other software communicate with peripheral devices [printers, card readers, disk and tape devices, etc.]; support the development of other types of software; and monitor the use of various hardware resources [memory, peripherals, CPU, etc.]. Thus, systems software makes the operation of the computer system more effective and efficient. The programs included in a systems software are called systems and the person who prepared systems software is referred to as a systems programmer.

### FIRMWARE

Computer software in conventional systems is supplied on storage media like floppies, tapes, disks etc. However, with the advancement in technology and the reduction in hardware cost, today software is also being made available by many computer manufacturers on read-only memory [ROM] chips. These ROM chips can be easily plugged into the computer system and they form a

## COMPUTER PERSPECTIVE

part of the hardware. Such programs (Software) made available on hardware are known as firmware. Firmware often refers to a sequence of instructions (Software) that is substituted for hardware. For example, in an instance where cost is more important than performance speed, the computer system architect might decide not to use special electronic circuits (hardware) to multiply two numbers, but instead write instructions (Software) to cause the machine to accomplish the same function by repeated use of circuits already designed to perform addition. This software will be sorted out in a ROM Chip of the computer and will be executed (used) whenever the computer has to multiply two numbers. Hence, this software will be known as firmfax. To be precise, firmware is substituted for hardware and stored in a read-only memory.

Initially, only systems software was supplied in the form of firmware. But today, even application programs are being supplied in firmware form. Dedicated applications are also programmed in this fashion and available in firmware. Because of the rapid improvements in memory technology, firmware is frequently a cost-effective alternative to wired electronic circuits, and its use in computer design will increase. It is expected in the near future, firmware will make possible the cost-effective production of smart machines of all types.

### FLOWCHART

Flowchart is a pictorial representation of the various steps required to solve a problem. In other words, a flowchart is a blue print or a logical diagram of the solution to a problem. Flowchart being pictorial or graphic representation of the sequence of steps required to solve a problem, provides the simplest approach to program planning. Thus, a flowchart is a method of assisting the user to organise a sequence of steps and produce a two-dimensional visual aid to solve a given problem. The flow chart is made out of boxes with the shape of each box indicating the kind of operation being performed.

### Limitations of Flow Charting

Flowcharts are of great help in analysing problems and developing the logical solution, but they suffer from the following defects :

1. Flowcharts are quite easy to follow but their translation into computer programs is not so easy.

2. Flowcharts are quite cumbersome and it takes a long time to draw them.

3. The objective is to be achieved is sometimes lost due to confusion while drawing these flowcharts.

4. Very often details relating to particular machines or languages are introduced inadvertently at quite an easy stage of programming in the flowcharts. Due to this there is loss of generality in the flowcharts.

However, a careful construction of flowcharts can avoid this problem.

### Points to Remember when flow charting

- Know the symbol well
- Indicate the flow line carefully
- Keep instructions clear & concise
- Do not take anything for granted
- Do not make the flowchart ambiguous
- Make sure all eventualities are covered

## COMPUTER LANGUAGES

All computer languages can be classified in the following three broad categories :

1. Machine language
2. Assembly Language
3. High-Level Language

We shall now examine the evolution and nature of each type of language.

### Machine Language

Although computers can be programmed to understand many different computer languages, there is only one language understood by the computer without using a translation program. This language is called the machine language or the machine code of the computer. Machine code is the fundamental language of a computer and is normally written as strings of binary 1s and 0s. The

circuitry of a computer is wired in such a way that it immediately recognizes the machine language and converts it into the electrical signals needed to run the computer.

An instruction prepared in any machine languages has a two-part format, as shown in figure. The first part is the command or operation, and it tells the computer what function to perform. Every computer has an operation code or opcode for each of its functions. The second part of the instruction is the operand, and it tells the computer where to find or store the data or other instructions that are to be manipulated. Thus, each instruction tells the control unit of the CPU what to do and the length and location of the data fields that are involved in the operation. Typical operations involve reading, adding, subtracting, writing, and so on.

OPCODE (Operation Code)	OPERAND (Address/location)
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We already know that all computer use binary digits (0s and 1s) for performing internal operations. Hence, most computers' machine language consists of strings of binary numbers and in the only one the CPU directly understands. When stored inside the computer, the symbols which make up the machine language program are made up of 1s and 0s. For example, a typical program instruction to print out a number on the printer might be

10110011111010011101100

The program to add two numbers in memory and print the result might look something like the following :

00100000000001100111001

00110000000010000100001

01100000000011100101110

10100011111011100101110

00000000000000000000000000

This is obviously not a very easy language to learn, partly because it is difficult to read and understand and partly because it is written in a number system with which we are not familiar. But it will be surprising to note that some of the first programmers, who worked with the first few computers, actually wrote their programs in binary form as above.



# PERSONALITY DEVELOPMENT

## YOU AND YOUR INTERVIEW

Almost every competitive examination ends with an interview. The other name of interview is the personality test. Though, there are many ways of testing one's personality, interview has become the most accepted and prevalent way today. Be it a competitive examination for employment or for admission in some academic institution, there is provision for an interview as the last stage of the test. Since merit list is finally made after adding the marks obtained in the interview, this becomes an important hurdle in the way to success. Though interview carry lower marks than that of the written (objective or subjective) test, one can not take it easily as no one is fully sure about the marks obtained by him in the written examination. That is why everyone wants to fetch maximum possible marks in interviews. Those who are on the borderline of the interview cut off are in that real risk of making into the final list. For such candidates every single mark matters. With it they are in the successful candidates and without it they are nowhere. That is why once you get an interview call, you feel blood flowing fastly in your vessels. You start some kind of preparation of the interview to say so. You start mugging up each and every detail concerning current events and general awareness. But there are many important things which seek attention while you are preparing for interviews.

## SOME MISCONCEPTIONS

There are many misconceptions among aspirants concerning interviews. The first misconception is related to the nature of the interview. General perception about interviews

are that there are verbal test of candidates, knowledge of everything under the sky. That is why an aspirant starts mugging up right from the disciplines he read till date and general studies as well as general studies. One may imagine about going through all these things in a short span of time. You must know that interviews are in no way test of your knowledge. Basically, this is a personality test and knowledge is not among important parameters of someone's personality. But why interviews do ask question on above given topics? Actually, Interview runs like a question-answer session though it is more than such a session. After giving correct answers to each and every question, one may fetch bad marks in an interview. And in the same way after answering only few questions one might get the highest marks in an interview. Why it is so? Basically, the way to adjudge one's personality in an interview goes through question answer session. But what type of questions should interviewer ask to the aspirants? This problem is solved by the area such as general awareness and the disciplines one has studied during one's academic life. Suppose a candidate is unable to answer some questions, from the discipline he had studied while doing graduation or from current events (for example) the candidate has not committed a crime. He will be asked some other questions so that he is able to put his viewpoints and perception about them therefore, saying I don't know is not a bad thing in interviews. The most important thing about interviews are concerned with the fact how did you answer, what did you answer. If you were trying to misinform the interview board you are inviting failure, as for example.

Basically, while we speak or express something we are showing different 'personality traits' in the process. And one must know that a psychologist is usually sitting in the

board one is facing. In a very brief period of time the psychological expert is able to rate your personality. Other members are there to ask you question and to opine whether you were correct or incorrect in your opinion while answering those questions. If you don't know answer of some questions it won't carry negative marking. But this depends on what the question is. Suppose someone has graduated with Physics and he is not able to say what is theory of relativity, this is not a good thing. It means one is always supposed to be well-known about the fundamentals of the disciplines one has studied during ones academic career.

In the same way a general graduate is supposed to be aware to his surrounding. And in our surrounding there comes everything which may imagine below the sky. That is why an aspirant basically starts mugging up currents, general studies, economy, polity, etc. once he get the interview call.

## PERSONALITY MATTERS

At the end we may conclude that it is your personality which matters in interviews. Knowledge is the tool with which Interviewers try to open you up so that every inherent personality traits come to the surface and they are able to adjudge your personality. And to build a better performing personality you need to do some practice. This practice goes on for longer period of time. Suppose someone has major personality related defects, a personality developer might be very helpful. During a very short span of time I have been able to treat many such candidates. They were able to perform well in their interviews.

A better performance in interview depends upon the overall grooming of the candidate and it covers the whole life. One cannot prepare for interviews in a short span of time. It needs regular practice.

# The Interview or Personality Test **FACE to FACE**

**HOW TO PREPARE FOR  
BSRB, SSC, RRB INTERVIEW**

To equip our readers in a proper way for their interviews has been the main objective of this permanent column. 'Pratiyogita Kiran' has been publishing many important materials and tips concerning personality test for the last many issues. Thousands of readers write us about their thanks and gratefulness to the magazine. They qualify several types of examinations organised by the various recruitment boards every year. We consider these letters as the proofs of our attempt and commitment to the cause of our spirited readers. The 'Kiran family' believes that it has been successful in making the monthly 'To The Point'. We are really grateful to those readers who have sent letters to us and we extend our all 'goodwishes' for their forthcoming examinations and the interviews.

We are always waiting for our readers' suggestions so that the column 'Face-to-Face' could be made more and more 'To-The-Point'. We request our readers to send in all the details of the interviews, they have faced in recent times. Don't forget to attach relevant documents (photostat) to prove the bonafide, as well as your passport-size photograph. We will publish your interview in this column so that many of your fellow brothers and sisters could be benefitted from your experience.

It won't be irrelevant to inform you that we get enough material for the publication in this column 'My Experience'. But, due to lack of space and publishing ethics we are unable to publish more than one interview in a single issue. Thus, we have to choose one out of many. The interviews which we don't publish are also important. Therefore, the readers whose interviews have not been published must not get discouraged. We hope our readers understand our publishing constraints.

This column attempts to publish various types of interviews organised by different recruitment boards so that readers get a range of prior experience. To what extent we are able to fulfil this objective this can be only told by you. Extending our heartiest wishes for your forthcoming examinations and the interviews. —Editor

In the present issue of our magazine we are publishing the experience of Mr. Manoj Kumar who has recently cleared the Reserve Bank of India Group-B Officers examination. Coincidentally, Mr. Manoj happens to be a well-wisher and reader of the 'Pratiyogita Kiran'. Since his interview-experience is quite long we are unable to publish other interview-related suggestions which we had been putting them regularly. We hope that our readers take optimum benefit from the interview. We also thank Mr. Manoj for his kindly gesture who has sent his experience. We always expect such constructive co-operation from our spirited leaders.

## Personal Introduction

Name	- Manoj Kumar
Father's Name	- Sri Vishwanath Gupta
Mother's Name	- Smt. Malati Gupta
Date of birth	- 05.01.1973
Add.	- Janata Ayurvedic Aushadhalaya Block Road, Vill. + P.S.-Bikram
Distt.	- Patna (801104)
Edu. Qualification	- Matriculation-63.3% Intermediate (Sc)-52% Graduation (Sc)-65.3%

## MY EXPERIENCE

I am happy to inform you that due to successful guidance provided by 'Pratiyogita Kiran' and other relevant books published by the publication, I have been finally selected for the post of RBI 'Group-B' Officer (class-I).

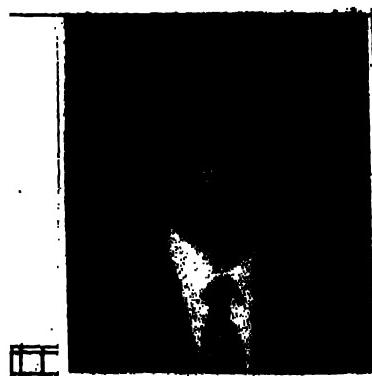
Hobbies-Playing and watching cricket, Painting, conducting cultural programmes, writing diary, playing badminton.

Strongside-Faith on work, to have confidence and control in adverse situations, fighting nature, to make serious attempts for objectives.

Weaker Side-Stubborn by nature

Ideal- Parents

Close person- My younger brother Bimal Kumar/Pintu (Deputy Section Officer, Ministry of Water Resources, Govt. of India,



मनोज कुमार

New Delhi) who always encouraged me after getting back from Delhi. A big part of the credit of my success goes to him, too.

View-Always trying for betterment.

## Earlier Selections

- BSRB, Calcutta, Clerk Grd. 1993- first attempt
- Bihar pre-Polytechnic Test (Govt. of Bihar) 1993- first attempt
- Hotel Mgt. Entrance, (Govt. of India), 1993-written (first attempt)
- Hotel Mgt. Entrance (Govt. of India), 1994-finally selected (second attempt)
- Centre for Policy Research Exam. (N. Delhi), 1997 -58%
- 45 the position in India (first attempt)
- BSRB, Bangalore, P.O. 1998-Written (first attempt)
- RBI Grd- 'B' Officers's Exam. 1997-finally selected (first attempt)

I was interviewed on December 4, 1998 at the RBI, Mumbai. I had English as my medium of interview though language hardly matter, expression should be up to the mark. Following are the details of my interview-

**Manoj :** May I come in, Sir? (I wanted permission from the Chairman after opening the door comfortably)

**Chairman :** Yes, come in.

**Manoj :** Good afternoon to you all, Sirs.

**Chairman :** Good afternoon. (He didn't ask me to sit down). What is your name?

**Manoj :** Sir, my name is Manoj Kumar.

**Chairman :** What is your educational qualification?

**Manoj :** Sir, I have passed B.Sc. (honours).

**Chairman :** In which year and in which discipline?

**Manoj :** Sir, I passed my honours examination in 1993, in Botany.

**Chairman :** Okay, Manoj, please take your seat.

**Manoj :** Thank you, Sir (I sat down with a smiling face).

**Chairman :** Recently, the South East Asian economic crisis has been in the news. What were its important reasons?

**Manoj :** Its main reason was the portfolio investments. Many foreign companies had invested in these

countries as short-term loans which were invested in the real estates or immovable assets by the domestic companies. Domestic companies were unable to sell out these real assets but by then the loan had matured and they needed repayment in full. Domestic companies failed to pay back these loans and ultimately they surrendered. This affected the foreign exchange assets and then currencies had gone for the depreciation. This resulted in rise in exports and a fall in the import. Thus, the economic situation deteriorated.

**Chairman :** Did it affect the Indian economy?

**Manoj :** Indian economy was affected but to a very little extent.

**Chairman :** What effects it had on the Indian economy?

**Manoj :** India's export declined and .... (the Chairman interrupted)

**Chairman :** why did export decline?

**Manoj :** Currencies of the South-East Asian countries have been devaluated which encouraged their exports and discouraged their imports. In this way export demands for the Indian goods declined.

**Chairman :** What was the decline in Indian export this week?

**Manoj :** Sir, it was 118%.

**Chairman :** Where did you read it?

**Manoj :** Sir, I read this information in the Economic Times, yesterday itself.

**Chairman :** What is devaluation in currency?

**Manoj :** Sir, when an economy goes for formal and intentional cut in the exchange rate of its currency, it is called devaluation.

For example suppose the official exchange in \$1 = Rs. 7 and government makes it \$1 = Rs. 10 this is an action of devaluation. This encourages exports while discourages imports. To control trade deficit is the main objective of devaluation.

**Chairman :** What are the different functions of the RBI?

**Manoj :** As this is the Central Bank of India its functions are of diverse types. We may divide its functions into two categories. Firstly, it functions as a general central bank of India and secondly, it performs some developmental and regulatory functions, too. In the first category it performs many duties- banker of the government, banker of the banks, issuing of the currency notes, credit control (for which it announces monetary policy, every six months), regulates the foreign exchange. In the developmental category of its functions, it collects economic facts and data upon which the Government makes its policies. To control NBFCs, motivate people for saving, help commercial banks to open their branches in the rural and backward areas, to provide institutional credit to the agricultural sector, are its other developmental works.

**Chairman :** What is the monetary policy of the RBI?

**Manoj :** As per the economic condition of India, RBI announces its monetary policy every six months to facilitate credit control. Measures of the monetary policy are- bank rate, CRR and sometimes the help of open market operations is also taken.

**Chairman :** What is M<sub>1</sub> in the monetary system?

**Manoj :** RBI has been calculating money supply in four components since 1970-71. M<sub>1</sub> is one among

## FACETO FACE

them. It includes currency and coins with public demand deposits (current + saving) of banks and other deposits of RBI.

**Chairman :** What is stagflation.

**Manoj :** Stagflation is a peculiar situation of an economy when any or all sectors of the economy feel stagnation in economic activities. Employment starts falling while prices start rising.

**Chairman :** Do you hope nationalisation of banks in future?

**Manoj :** There were some objectives behind bank's nationalisation-facilitate governmental control over the capital and direct it towards economic development as per our planning. But in my view, there isn't any need of further nationalisation of banks as 88% of the total bank deposits are with our nationalised banks. Foreign banks can not deposit money with the scheduled banks because this will start badla activities. The Narasimhan Committee in 1991 had suggested no further nationalisation. Same suggestion came from the World Bank. Again, in the time when the Government is going for disinvestment in the PSUs we can hope merger and privatisation of banks but no nationalisation. Our banks (nationalised) are being given greater autonomy day by day.

**Chairman :** Why are banks called public sector banks? Why they aren't called public enterprises?

**Manoj :** Public sector is a broader term than the public enterprises. Both are owned and managed by the Government. In public sector we include-education, public health, while in public enterprises we include-the goods and services produced and sold by the Government.

**Chairman :** What is genetic Engineering?

**Manoj :** Sir, this is a part of biotechnology. We know that every living organism has different types of genes. With the help of genetic

engineering we go for change in the shape, size and properties of such organisms.

**Second Member :** You must have heard about the 'Narasimhan Committee'. What are its recommendations concerning the banking structure?

**Manoj :** According to the Narasimhan Committee, Indian banking structure should be three-tier in which 2-3 banks should be of international standard including the SBI. At the secondary stage there should be 8-10 big national standard banks. At the retailing level, all other local and different banks are suggested.

**Second Member :** What do you mean by 8-10 big banks? We have already 8-10 big banks like PNB, Canara Bank, Bank of Baroda, etc.

**Manoj :** Basically, by 8-10 big Banks the committee means such universal banking institutions which could lend money to big industries and Corporations.

**Second Member :** What is Universal Banking?

**Manoj :** When a bank provides sources like insurance, credit (long and short terms) as well as investment at a time, it is called universal banking institution.

**Second Member :** What has been said about the weaker banks by the Narasimhan Committee?

**Manoj :** As per the committee if a bank has more non-performing asset (NPA) than its capital or if it has run in detail for three regular years then it will be called weaker bank. The committee recommends narrow banking for such banks in place of their recapitalisation since re-capitalisation has yielded no positive results for the last six years. It further recommends that if they don't start fetching profit after narrow banking they should be closed down. Again, narrow banking is only suggested for those banks which are in a state of restructuring and rejuvenation.

**Second Member :** What do you mean by narrow banking?

**Manoj :** When a bank starts investing in Government securities in place of lending money to agriculture, industries and other people, such banking is called narrow banking (member looked more than satisfied after this answer, as I felt).

**Second Member :** What do you mean by convertibility of Indian currency?

**Manoj :** When the market based transformation of the Indian currency is allowed without any prohibition to any foreign currency-this is called convertibility of Indian currency.

**Second Member :** Is Indian currency fully convertible, at present?

**Manoj :** No, Sir, Indian currency is not convertible in every account. This is convertible in trade and current accounts only. But we can not go for it in capital account. Thus, we say that Indian currency is not fully convertible.

**Second Member :** What is difference between current and capital amount convertibility?

**Manoj :** The current account includes foreign exchange receipts and payments due to invisible transactions. If free transformations of the Indian currency into foreign currency are permitted for invisible transaction as well. The currency is said to be convertible on the current account. The capital account convertibility spares capital outflows and inflows. If rupees can be freely transformed into dollars for capital inflows and outflows, the rupee can be said to be convertible in the capital account as well.

**Second Member :** What should be the conditions to make Indian currency fully convertible?

**Manoj :** There are some necessary conditions to make rupee fully convertible-market determined international level of interest rate, proper development rate, proper amount of foreign currencies, lower level of inflation and NPAs of banks should be lower, too.

**Second Member :** How can the NPAs of banks be brought down?

## FACE TO FACE

**Manoj :** Sir, the best way to check it to stop politicisation of the bank debts. Frequent subsidization and amnesty of loans should be stopped. At the same time harder steps should be taken to re-collect the loans.

**Second Member :** What is the difference between revenue deficit and fiscal deficit?

**Manoj :** Sir, the governmental expenditure amounts above the governments' total revenue receipts are called revenue deficits. At the other hand if the total receipts (revenue, loans etc.) of the Government is less than its total expenditure, it is fiscal deficit. Fiscal deficit presents the real pictures of the deficit.

**Second Member :** What is the difference between GDP and GDR?

**Manoj :** Sir, while GDP is the value of the final products produced by a country in its geographical boundary in one year, GDR (global depository receipts) are the bonds issued in the international market.

**Second Member :** You play cricket as your hobby, tell me about finer spin.

**Manoj :** Sir, when bowler throws a ball to a right hand batsman on leg stump and cuts it towards the off stump it is called 'leg spin' or 'finer spin'. (Now the second member indicated the third member to ask the questions).

**Second Member :** In 1997 the RBI Act was amended so that RBI could control the NBFCs. Why this supervision was needed?

**Manoj :** Sir, several non-banking financial companies (NBFCs) committed higher rates of interest to collect heavy amount of money from the public and they went underground. This became a precedent for others to open new NBFCs mushrooming happened. People to whom the NBFCs had defaulted went to the court and the Government, ultimately the RBI Act was amended to bring NBFCs under RBI's preview.

I was interviewed for the above given post at the Calcutta regional of-

ice of the RBI. I reached Calcutta on December 1, 1998 itself, two days ahead of my interviews. I stayed here in a hotel though I was very much aware of interview as I had recently faced the BSRB, Bangalore P.O.S interview (Sept 10, 1998). Every interview is different such as every page of a book. That is why I started preparation with a changed perspective.

I was to be interviewed on Dec. 4, 1998 in the first batch. I took full sleep last night. I went for a through reading of two newspapers and tried to memorise important news items. I selected milky white shirt, grey trousers, black shoes and maroon-coloured printed tie for the interview.

I prepared for my interview starting with going through back issues of the "Pratiyogita Kiran". Since I was preparing for the interview at my native village Bikram, in lack of suitable people I could not go for mock interviews. Though, I had seen regularly having my interview in front of a mirror which helped me too much. I continued with my mirror-interview for 20-25 days. regularly.

I had mugged up many things as part of my preparation-current affairs, current Indian economy, current knowledge, traditional knowledge of Banking. Indian economy, RBI as well as my Bio-Data, Honours subject, important issues related to Bihar. After reaching Calcutta I was totally tension-free concerning my preparation.

I was called for the interview at 12 noon., there were three members in the board who were very co-operative. My interview ran for 40-45 minutes and mainly revolved around Economics and Banking. Except one or two questions I answered almost every question. At the end of the interview I was fully satisfied.

**Third Member :** How does RBI control the NBFCs?

**Manoj :** Sorry Sir, I do not know about it.

**Third Member :** When NBFCs were brought under the RBI's control, the NBFCs put their grievances in front of the Government. The Government did set up a committee to suggest on the issue, what was the name of the committee?

**Manoj :** Sir, it was Vasudewa Committee.

**Third Member :** Bihar is the most backward State of India. Why?

**Manoj :** Sir, there are mainly four things responsible for Bihar's backwardness. Firstly it is political cause which we may put things like inefficient leadership, lawlessness, lack of new projects, scams by leaders, special attention to rallies given by leaders and rampant corruption among other things. Secondly it is which includes casteism, illiteracy, misuse of human resources, new version of terrorism, population explosion, dowry system and lack of health services, etc. Thirdly, we may count the Economic factor which includes things such as under utilization of the natural resources, lack of electricity, unemployment, slow industrial development, insufficient transportation, backwardness of agriculture, no foreign investment, and poverty and other things. Lastly, we may count the Geographical factor due to which Bihar faces floods every year.

**Third Member :** What are the resources responsible for floods in Bihar every year? How it can be checked?

**Manoj :** Among the rivers flowing into the State worth only Budhi Gandak originates in Bihar. Other rivers originate either in Nepal or in Tibet. These rivers meet Ganga after flowing through the whole North Bihar. Naturally, these rivers pour enough water in the plains of north Bihar before draining into the Bay of Bengal. North Bihar basically carries the rainfall of almost three times of its area into the sea. Its rivers while doing this

## FACE TO FACE

job become inefficient due to its limited drainage system which culminates in floods every year. At other side the inefficiency of the governmental machinery make situation bad to worse. Bihar has a total area of 68.8 lakh hectares as flood zone of which only 26 lakh hectares have the embankment facility i.e. 37% of the total flooded area. The Government of Bihar does not go for proper maintenance of the embankments and allocates insufficient money for the purpose. In July 1998 the State Government accepted that for the last six years none of the ongoing embankment projects have been completed nor any of the existing embankments have been strengthened or their heights enhanced. But we cannot make the State Government fully responsible for the floods because the situation is deteriorated by the water originating from Nepal. Thus, this is an international problem for which the Government of India should try to negotiate with the Nepal Government and encourage the country to go for a dam so that the water flowing into the Bihar planes could be moderated and controlled. All rivers should be equipped with flood reservoirs so that the extra water could be regulated.

**Third Member :** Tell me some names of the films of Manoj Kumar (This question was related to my name).

**Manoj :** Sir! Upkar, Kranti, Roti Kapada aur Makan, Shahid, Purab aur Paschim, Shor and Yadgar are his famous films.

**Third Member :** Md. Azharuddin has been replaced by Sachin Tendulkar as Indian Cricket team's captain, is it a correct decision remember, that question was asked on 4.12.1998.

**Manoj :** In my opinion, it was not a right decision. Though, the captaincy records of Mr. Azharuddin is better than that of Sachin's captain records, Sachin is the best player in the team, at present and the best player should be the captain of the team. Basically, when Sachin had become experi-

enced enough to lead the team he was replaced from the job. If we had taken the risk of handing over captain to him at the younger age. We should have waited for some more time so that he could have adjusted with the responsibility by then. At present, Sachin is the only player in the team about whom one can be assured that he will be playing for six to seven seasons. The same thing cannot be said about Mr. Azharuddin and Jadeza (It is known that Sachin has been made captain upto March 2000.)

**Third Member :** What was the Resurgent India Bond of the SBI which opened on August 5, 1998?

**Manoj :** Sir, this bond was issued by the SBI Capital Markets Limited in three foreign currencies US dollar, Pound Sterling and Deutsche Mark for non-resident Indian (NRIs) only. These bonds are for a five year period and carries attractive interests.

**Third Member :** Why the NRIs have invested in this bond? Why they are not investing in the country where they are living?

**Manoj :** Sir, RBI has offered 7.75% interest on dollar investments while in the US non-residents are given only 5.75% interest on such investment. In the same way RIB provided 8% interest on Pound sterling investment and 6.25% interest on Deutsch Bank investment which are only at 6.5-7% and 4-4.5% respectively in the respective countries for non-residents.

**Third Member :** Has this bond been successful?

**Manoj :** Sir, this bond has been exceptionally successful almost double to the expectation. This bond had seen able to collect a total amount of \$4.16 billion, though only \$2 billion was expected from this bond.

**Third Member :** Why have you opted banking as your career?

**Manoj :** Banks have played an important role in India's development. It has not played an important role in the process of economic development but in the social development as well. The

diverse nature of banking management, challenging work environment, and the will of welfare activities have always attracted me. Other than these things neat and clear and healthy shape of the sector, better scope for promotion, attractive salaries and other allowances have also been the driving forces why I opted for banking as my career. Again the growth does never stop in this industry as personnels need to deal with new situations, every day. I think that economy can sustain everything. So, I would like to be in this primary sector's apex body, RBI.

At this stage the third member gave some indication to the Chairman. The Chairman said, "Thank you very much, Mr. Manoj Kumar."

**Manoj :** Thank you, Sir. Have a good day to you all, Sirs. (After finishing this sentence I moved ahead, opened the door and came out gently)

I was very much satisfied with my interview. I had performed very well in written examination. Thus, I was very much hopeful about my final selection.

I would like to suggest my fellow friends to carry on with hard labour till success comes. With the honesty, patience, courage and self-confidence your labour has to result in glimmering success, there isn't any doubt in it.

Yours,

**Manoj Kumar**

After going through the experience of Mr. Manoj Kumar it becomes clear that he was asked questions on general awareness (traditional and current), social, political, economic issues as well as some questions on educational qualifications and hobbies were also there. In the next issue of our magazine we will produce the analysis of this interview.

We hope that the present interview will benefit our aspiring readers. Good wishes to all of you who are going to face interviews in near future.



# GROUP DISCUSSION

Group discussion (GD) is an important part of the personality test, included in many competitive examinations. For the benefit of our readers we have been coming with a regular column on this topic. In the present issue we will have a discussion by five candidates. The topic for the discussion has been taken from an actual GD examination. Out of many alternatives, candidates agreed upon a consensual topic — '*Green Revolution and Famines*'. The total

time given for the discussion is thirty minutes. Candidates decided to speak in lexical order of the first letter of their names for six minutes each. Thus, it is the candidate 'A' who starts the discussion.

**Candidate A :** India had been witness to severe famines. After we got independence, we were able to minimise the pains of famines, but with imports of foodgrains. We know that India had been an agrarian economy and its farm lands had almost fully dependent upon monsoon for irrigation. Irregularity of monsoon brought regular droughts and floods. Though, we have been able to minimise our dependence on monsoon, even then a large part of Indian farm lands are dependent upon monsoonal rains for irrigation purpose. Just after independence India became a chronic case of foodgrains imports to feed her fastly using population. But the decade of sixties was to make a sea change in the Indian foodgrain scenario. In mid-sixties India went for the New Agricultural strategy which is commonly-known as the Green

Revolution. This new way of cultivation was based upon three inputs—high yielding varieties of seeds, chemical fertilisers and irrigation. But it was not possible to

same thing occurring. By the time we were finishing eighties and ushering into the nineties India had become self-reliant in foodgrains. And ultimately India emerged as an exporter of foodgrains from a net importer of foodgrains. We now have enough buffer stocks which is able to counter any famines, if they occur.

**Candidate B :** I think the history of famines and the self-reliance in foodgrains had a better historical account by my predecessor. Today India maintains a handsome

amount of buffer stock to counter foodgrain scarcity due to any reason. But a simple truth also attracts our attention. Though we are self-sufficient in foodgrains production, we would not be in the same comfortable situation in future if our productivity remained stuck where it is today. Actually there is a gap between the population growth rate (1.9% per annum) and the foodgrains production growth rate (1.7% per annum) during the decade we are passing through. Though, the gap is only 0.2% annually, this pushes us to import some amount of foodgrains every year. This is totally other thing that we have been exporting some amount of Basmati rice and some amount of better qualities of general rice.

As per the views of the Indian Council of Agricultural Research (ICAR), if our population increases with the present rate and our foodgrains production had the present growth rate, India will again become a heavy importer of foodgrains in coming decade itself.



spread the revolution all over the country as India lacked all of the three inputs at that time. Thus, we selected only two and a half states to say for the implementation of this new agricultural strategy—Haryana, Punjab and Western Uttar Pradesh. Heavy investments in irrigation were made as well as governments went on to set up fertilisers plants in the public sector. The cause of seeds, though imported in the primary years, was also given proper attention and India started to produce high yielding varieties of seeds in coming years. The strategy started to bear fruit in the latter part of seventies. By the time it was eighties, we had already felt the miracle of the Green Revolution. India had been able to increase her wheat production by more than hundred per cent. Though rice production could not see the same miracle in the first few years, its production rose when we had developed better breeds of rice seeds in coming years. Other crops covered by the new strategy (maize, jowar and bajra) could not see the

## I GROUP DISCUSSION

According to the Council, our Green Revolution areas had the main producers of foodgrains and these areas are now stagnating in this attempt. The productivity of these areas has actually peaked and until we had better breed of seeds they can not make the same miracle in future. Thus, we need to focus our attention of the research and development towards genetically improved seeds — the area in which India does not have much expertise and less to boast of. An alternative is there — to spread Green Revolution in other areas of the country. But this has its own limitations of capital, monsoonal effects and other constraints.

Thus, If we could not manage our future agricultural strategies, the famines of past may look a future reality.

**Candidate C :** We don't see famines today. But what about the 36 per cent people living below the poverty line (BPL)? Are they really getting two meals a day? What about the mal-nourished children belonging to these BPL families? Are these future Indian citizens not facing famines?

Basically, we can not doubt the miracle of Green Revolution. The revolution really made us self-sufficient concerning foodgrains. But everybody is not being fed by it. Our claims of self-reliance in foodgrains seems incomplete. We are able to do away with famines but crores of Indians are facing a famine-like situation everyday. Why it is so? Actually, the self-sufficiency in foodgrains is not relevant in the context of the poor people. The costly inputs of the Green Revolution has basically pushed the foodgrains prices higher and higher. Thus, today we have physical access to foodgrains but a good number of Indians don't have the economic access to it. It means that though the goal of foodgrains self-reliance looks achieved it is yet

to be achieved. Costly foodgrains produced by the Green Revolution areas have benefitted the big farmers of the area and not the general masses living below the poverty line.

We may blame our planners because they failed in enhancing the purchasing power of the masses. The availability of foods in the market is no guarantee of the real consumption. And we calculate consumption level with the parameters of availability of the commodities in the market per person per day or per annum. Such calculations are correct only in those countries where the masses have a standard purchasing power. Therefore, we need to change our parameter to calculate the real consumption scenario. I don't think we have passed the phase of famines. Actually, we are having regular famines.

**Candidate D :** I agree with my friend 'C' to the extent he deals with the real picture of our country. But I would like to add some more points to his view points.

To criticise the Green Revolution for the price rise in foodgrains is other thing; but one must not forget that this was the only option left to us to guarantee better crop. At least we were able to be certain about the physical access to the foodgrains. Costly inputs will increase the prices of foodgrains was already known that is why the Government went for the Food Corporation of India and the Public Distribution System (PDS). Basically, our population has been rising fastly and to keep pace with it the only option left to us was to go for advanced ways of foodgrains production.

People are not able to afford the prices of the foodgrains, this is a totally other issue. The planned development of India has been badly unable to provide works to the issuing work force. Thus, the rampant poverty became a real problem for India. This does not

mean that we should discard the Green Revolution methodology of crop production. The problem of purchasing power and poverty can not be solved by the Green Revolution. We need to fight this problem separately.

**Candidate E :** India has already crossed the phases of severe famines. Though, there are a good number of people living below poverty line, the scarcity of foodgrains in the country can not become the cause of famines, as it happened in the past. Today, we have foodgrains available in our markets. But, in past we had no such situations. We imported foodgrains to assure that they are available in the markets. The problem of poverty was very much that day. So it is today.

Again, when we had no Green Revolution there were many big farmers who sold out their surplus foodgrains in the open market. Even those foodgrains were non-affordable for the people living below the poverty line. Therefore, if poor people are not able to purchase the foodgrains today, the Green Revolution cannot be blamed for it.

The increase in the purchasing power of the general mass is the moot point of economy and the planners, anywhere in the world. Even private sector wants that people become richer so that they could go for heavy purchasing. And Governments always keep on trying to implement many programmes which could eradicate poverty.

Therefore, in my view, due to the Green Revolution India has been able to say good bye to the famines, we had been facing after the independence. This is other thing that in future we need to focus this area to be assured that the availability of foodgrains are over there. Food security is an important aspect of India's economic development, there isn't any doubt in it.

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# Paragraph Writing

\*Propaganda is the art of persuading others of what one does not believe oneself.

— Abba Eban

Today, the propaganda has a fully accepted meaning in politics, business and everywhere. But it was not so in the past. Today, manufacturers and traders go for serious advertisings so that they could sell their products. The effects of advertising is a fully accepted thing today. Advertising is, nothing but a systematic propaganda. In the present quotation, Mr. Abba Eban has something to say on propaganda in satirical way.

In political arena the word propaganda got currency when Adolf Hitler created a full-fledged ministry for the same. Goebbels was his propaganda minister. The concept of propaganda had negative connotations at that time. People did not take it as a good thing because many times it presented distorted picture of the reality. Many time totally unreal things became real due to excessive propaganda. Thus, propaganda got a touch of disbelief in the minds of people. But a time came when people were convinced that propaganda was a means of communication. People might not be able to know about the reality of leaders' quality or products' quality in absence of it.

Thus, by late seventies propaganda emerged as a positive thing in the business circle. Today we have it established as full-fledged enterprise. Companies cannot think of selling their products in absence of propaganda. But, many times, propaganda came to become misleading. And even the propagandists were not certain about the things they were advertising for.

\* For man is man and master of his fate

— Alfred Tennyson

The 19th century English Laureate Lord Alfred Tennyson is here to say something on man's ability and the course of fate. The quotation is accepted like an ancient gospel, all over the world. It has today its proverbial importance in the English literature.

The quotation has two parts. The first part goes on to glorify the importance of being a man while the second part concludes that fate of a man is made by none but the man himself. Tennyson says 'man is a man' - he basically says that this species on earth has no comparison to any other living creatures. Man is the supreme creation on this earth. We see man constructing and destructing things. Man uses and misuses every other living being on this earth for his betterment. In the same way, man is the master of his fate, too. Everybody knows about the unseen curses of man's fate. And all of us become helpless in front of our fate. But fate is not unseen if it has been well-programmed by us beforehand.

This is what Tennyson intends to say. As per him man is so powerful that if he thinks to construct his fate it is not impossible. Man is the real master of his fate if he knows to sail across the river of fate.

\*Fortune favours the brave

— Terence

Terence, the Italian laureate expressed this view way back in the second century before Christ (BC). Nobody know whether such view was famous before him. But today atleast Terence's quotation has become a dictum all over the world. The quotation, though says a very simple thing, it has many important things to offer.

This says a very simple thing - fortune helps brave people. It means that if one thinks that fortune is going against him it might mean that he is not a brave. Basically, those who are brave take things in progressive stride and go on fighting the situation till they reach a better position and conditions for their life. It means that for brave and coward people fortune has different things in store. While cowards get unfavour from it, a brave person is favoured by it. Doesn't it mean that one basically constructs situations as per his requirement? Yes, it is. This is the most important thing Terence wants to convey the mankind.

Fortune is nothing but a by-product of our past actions and present actions. A bad time might be converted into good if we know to do so. We know that man is master of his fate. Brave people are never defeated. They learn from defeats and for them defeats and triumphs are basically a process. One cannot see one in isolation of the other.



# BUILD UP YOUR ENGLISH

## NARRATION

We shall continue our discussion on narration from where we had left it last time. In this context we have already studied kinds of narration and seen how Direct narration can be changed to Indirect narration and also indirect narration of assertive sentences. Now we shall see how indirect narration of interrogative sentences can be made.

—Editor

## INDIRECT NARRATION OF INTERROGATIVE SENTENCES

Interrogative Sentences are Question Sentences

Some Examples

- He said to me, "Are you going there?"
- She said to me, "Do you know his name?"
- You said to me, "What are you doing?"
- Mahesh said to Gauri, "Why were you late?"

REMEMBER THE FOLLOWING RULES :

### RULES

A  
Say is changed  
into ask, enquire (of),  
want to know (of) etc.

B  
Inverted commas (' ')  
are removed

C  
If there are Yes/No  
questions in reported speech,  
then if/whether is used before  
reported speech  
DIRECT : I asked Ramesh,  
"Can he come?"  
INDIRECT : I asked Ramesh,  
if/whether he could come

D  
But if in the reported  
speech there is wh-question  
(who/what/how/where/when)  
then conjunction is not used  
before interrogative word  
For Example :  
DIRECT : You asked your  
wife, "what are you doing?"  
INDIRECT : You asked your  
wife what she was doing

Note: Remember questions are often given in the exam, based on this rule (Rule C and D)

Example: He asked me that how I got time to write all these poems. (question asked in BSRB, Patna)

Ans: This sentence is incorrect. Here in place of 'that how I got....' only 'how I got....' will be used.

2. Refer to the above rule, according to which the use of conjunction 'that' before 'how' is wrong'

RULES

E

Reported Speech becomes Assertive.  
That is, the order of Verb + Subject is changed to Subject+ Verb. As :

DIRECT : Editor asked me, "What will  
You cover today?"

↓                      ↓  
Subject              Verb

INDIRECT : Editor asked me what I  
would cover that day.

↓                      ↓  
Verb                  Subject

F

At the end of the sentence  
sign of interrogation (?) is  
removed and in its place  
full stop (.) is used. As :

DIRECT : My father said  
to me, "Whom have you  
called today?"

INDIRECT : My father asked  
me whom had I called that  
day.

Based on the above rule (Rule E)  
problems are quite often asked in the  
examinations. See below:

(1) The receptionist asked me/

(1)

Who do I want /  
↓    ↓    ↓  
Whom (x)(2) wanted  
to meet in the office/No error.  
(3)                 (4)

(SSC Clerk Grade)

In part (2) of the above sentence  
In place of 'who do I want', 'Whom  
I wanted' will be used.

(1) Sentence is assertive in indirect  
narration therefore, 'I want' will be  
used in place of 'do I want'

(2) Since the reporting verb  
'asked' is in the past tense. Therefore,  
indirect narration will also be used in

the past tense. Therefore 'I want' will  
change into 'I wanted'

(3) 'Whom' will be used in place of  
'who'.

Keeping all the rules discussed  
above (a, b, c, d, e, f) in mind we shall  
attempt indirect narration of the four  
sentences stated in the beginning of  
our discussion. These are .

(i) He asked me if/whether I was  
going there.

Or,

He wanted to know if I was going  
there

(ii) She asked me if/whether I know  
his name.

(iii) You asked me/wanted to  
know what I was doing [Not that what  
was I doing]

(iv) Mahesh asked Gauri why she  
had been late.

[Not, that why had she been late]

Remember when Reporting verb  
is in the Past tense. And was/were is  
used in the Reported speech, then was/  
were changes into had been.

**INDIRECT NARRATION OF IM-  
PERATIVE SENTENCES**

(A) An Imperative sentence has  
order, request, negative command etc.

(B) It begins from main verb, such  
as, Go, Bring, Make etc.

(C) Negative command begins  
from 'Do not' or 'Don't'. As-

(i) Ragini said to her servant,  
'Bring a glass of water.'

(ii) Ramu said to his father, 'Please,  
bring me a pen'.

(iii) My friend said to me, 'Join my  
company'.

(iv) She said to her children, 'Don't  
walk in the sun'.

**4. Rules Regarding Order/Request**

RULES

(a)

Say/said changes to  
order/ordered; Request/  
Requested; ask/asked;  
beg/begged; tell/told etc.  
according to the meaning

(b)

Inverted commas  
are removed and  
'to' is used before  
the main verb

(c)

Pronoun in the  
reported speech are  
changed as required

(d)

Words as Kindly/Please  
etc. are not used in Indirect  
narration

**RULES REGARDING NEGATIVE  
COMMAND.**

(a) Say/said is changed to ask/  
asked, tell/told, remind/reminded etc.  
accordingly as required

(b) Inverted commas are removed  
and in its place not + to + v1 is used.  
That is 'Do not go' becomes 'not to go'.  
Similarly 'Do not make' becomes 'not  
to make'

Note: Problems based on the  
above rule are also given in the ex-  
aminations. As-

(1) I advised him/to do not go/

(1)                      (2)

abroad for/further studies/No error.

(3)                      (4)                      (5)

(BSRB, Patna, 1992)

In this sentence in Part (2) 'to do  
not go' will be replaced by 'not to go' to

make the sentence grammatically cor-  
rect.

(c) Forbid/forbade + object + to +  
V, is used, As-

Direct: He said to me 'Don't go out'  
Indirect: He forbade (forbade) me  
(object) to (to) go (v1) out.'

Again, Prohibit/Prohibited, Pre-  
vent/Prevented + object + from + ving  
is used  
*(to be continued)*

# IMPROVE YOUR SYNONYMS & ANTONYMS

## A. ABSOLUTE SYNONYMS AND ANTONYMS

**Directions (1-5) :** In the following questions, certain words are given followed by four options, one amongst which is the correct synonym of the word in question. You have to identify it as the right answer.

### 1. CLEAVE

- (1) cut into two
- (2) blow
- (3) glide
- (4) open

### 2. DOWDY

- |               |             |
|---------------|-------------|
| (1) doubtful  | (2) shabby  |
| (3) ambitious | (4) genuine |

### 3. HUSTLE

- |            |             |
|------------|-------------|
| (1) jostle | (2) hush up |
| (3) rebuke | (4) grab    |

### 4. INSTIGATE

- |                |             |
|----------------|-------------|
| (1) inspire    | (2) start   |
| (3) understand | (4) provoke |

### 5. LOITER

- (1) dance
- (2) fascinate
- (3) understand
- (4) stop

**Directions (6-10) :** In the following questions, certain words are given followed by four options, one amongst which is the correct antonym of the word in question. You have to identify it as the right answer.

### 6. QUEER

- |               |            |
|---------------|------------|
| (1) irascible | (2) quiver |
| (3) singular  | (4) Common |

### 7. QUIESCENCE

- |            |             |
|------------|-------------|
| (1) Retard | (2) Assert  |
| (3) Noise  | (4) Silence |

### 8. QUIET

- |              |             |
|--------------|-------------|
| (1) Misquote | (2) Still   |
| (3) Noisy    | (4) Disturb |

### 9. QUIT

- |            |            |
|------------|------------|
| (1) Endure | (2) Repeat |
| (3) Enter  | (4) Resign |

### 10. QUITE

- |                  |                |
|------------------|----------------|
| (1) Conciliatory | (2) Excitement |
| (3) Partially    | (4) Wholly     |

## B. RELATIVE SYNONYMS & ANTONYMS

**Directions (11-17) :** Read the following passage carefully and answer the question on synonyms and antonyms based on the passage given below.

The Booker Prize has come to be associated with a peculiar kind of hype and razzmatazz rather than seen as an indicator of literary merit. Yet a book came along and is actually honoured which does manage to rise above the din of quasi-literary cacophony and speak a more universal language. This year's Booker winner, J.M. Coetzee's *Disgrace*, illustrates South Africa's traumatic transition from apartheid to a multiracial multi-ethnic society mirrored in the lives of David Lurie, a professor, and Lucy, his daughter. The problems of South Africa are in many ways our own. Theologically loaded values such as truth, reconciliation, justice, guilt and repentance are often invoked to correct historical anomalies and reorganise the secular realm. The lives of David Lurie and Lucy reflect a conflict of incomensurable values and perspectives. While Lurie seems to justify his actions—whether it is seducing a student or regular visits to prostitutes—by indulging in abstractions, his daughter finds all meaning inherent in this world alone. The novel tries successfully to go beyond the 'victimology' that is so much preferred today by the chattering classes in post-colonial societies and by the curiously named departments of cultural studies in North American universities. Lucy not only lives an alternate lifestyle—a single woman, lesbian, farmer and eventually, the 'object' of a brutal rape—but firmly rejects the notion of a utopia. "There is no higher life. There is the only life there is. Which we share with animals."

It is this animal existence that

warns us against the perils of the eternal play of the master-slave dialectic. In this sense, Lucy's handling of her rape is a way of cutting through the miasma of the master-slave relation. When it is suggested to her that she might be in the process of expiating the crimes of the past through suffering in the present, she categorically rejects the idea of guilt and salvation as unworthy abstractions. Her practical response to it lies in her decision to give birth to the baby she is carrying; "I am a woman, David. Do you think I hate children? Should I choose against the child because of who its father is?". For her the memory of past is curse. The only way in which the present can be made better is through immense generosity, neutralising 'evil' through excess of compliance and assuming responsibility for one's life. Not that one shouldn't be sorry. The father of the student David Lurie seduces suggests the way forward after one is sorry: "But I say to myself, we are all sorry when we are found out. Then we are very sorry. The question is not, are we sorry? The question is, what lessons have we learned? The question is, what are we going to do now that we are sorry?" All this sounds all too familiar to us in India, where apology-mongering is the order of the day. If this novel fails to convince, a quick dash to the writings of Mr. M.K. Gandhi, barrister in South Africa in the early years of the century, would serve the purpose. For both Coetzee and Gandhi seem to be suggesting that the locus of values must necessarily lie beyond history.

### 11. Peculiar

A. Syn. (1) Strange

(2) specific

(3) plaque

(4) normal

B. Ant. (1) odd

## IMPROVE YOUR SYNONYMS & ANTONYMS

- (2) curious  
 (3) prolific  
 (4) normal  
**12. Razzmataaz**  
**A. Syn.** (1) Ravishing  
 (2) pompous show  
 (3) magnanimous  
 (4) something edible  
**B. Ant.** (1) Quiet activity  
 (2) Vulgar  
 (3) Vivacious  
 (4) Voluptuous  
**13. Cacophony**  
**A. Syn.** (1) coquettish  
 (2) telephony  
 (3) distance  
 (4) noisy  
**B. Ant.** (1) fascination  
 (2) glitz  
 (3) music  
 (4) glamour  
**14. Apathy**  
**A. Syn.** (1) Split  
 (2) distance  
 (3) colour discrimination  
 (4) animosity  
**B. Ant.** (1) generosity  
 (2) equal opportunity  
 (3) agent  
 (4) unity  
**15. Secular**  
**A. Syn.** (1) Secondary  
 (2) Security  
 (3) non-religious  
 (4) Sequential  
**B. Ant.** (1) religious  
 (2) hegemonic  
 (3) atheism  
 (4) anti-thesis  
**16. Dialectic**  
**A. Syn.** (1) Criss-cross movement  
 (2) linear movement  
 (3) uproar  
 (4) detailed  
**B. Ant.** (1) Linear movement  
 (2) Dialogue  
 (3) Role  
 (4) Lenient  
**17. Generosity**  
**A. Syn.** (1) Generate  
 (2) Genuine  
 (3) Liberality  
 (4) Liberty  
**B. Ant.** (1) Irregular  
 (2) Savant  
 (3) maverick  
 (4) narrow minded

### SHORT ANSWERS

- |               |         |               |        |
|---------------|---------|---------------|--------|
| 1. (1)        | 2. (2)  | 3. (1)        | 4. (4) |
| 5. (3)        | 6. (4)  | 7. (3)        | 8. (3) |
| 9. (3)        | 10. (3) | 11. A(1) B(4) |        |
| 12. A(2) B(1) |         | 13. A(4) B(3) |        |
| 14. A(3) B(2) |         | 15. A(3) B(1) |        |
| 16. A(1) B(1) |         | 17. A(3) B(4) |        |

### ANSWER WITH EXPLANATIONS

**1.(1) Cleave** (vt/vi) means cut into two with blow from a heavy axe etc; come apart, split:

For example:

(i) He cleaved the block of wood in two.

(ii) This wood cleaves easily

(iii) He cleaved his way through the crowd.

**2.(2) Dowdy** (adj.) means shabby or unfashionable (of clothes etc).

For example : He was dressed in dowdy clothes.

**3.(1) Hustle** (vt/vi)- means push or jostle roughly ; force somebody to hurry. For example (i) The police hustled the thief into the van.

(ii) The crowd started to hustle and soon there was a stampede.

(nu)-Quick and energetic activity. For example : (i) The railways station was a scene of hustle and bustle.

**4.(4) Instigate** (vt)- means provoke, goad, incite.

For example : (i) The strike was instigated by the rival firm.

**5.(3) Loiter** (vt/vi)- go slowly and stop at places aimlessly, wander aimlessly, while away the time, roaming around; for example (i) The boy used to loiter on his way home after leaving the school.

(vi) I am vexed with my servant, he always loiters whenever he is sent to market.

**6.(4) Queer** (n)-means bizarre, curious, odd, strange, weird, dizzy, peculiar, unbalanced etc. Therefore antonyms of this word are common, ordinary, usual, well.

For example : There were queer characters in this movie, not a single one was normal.

**7.(3) Quiescence** (n) means repose, rest, silence. Therefore its antonyms will be agitation, unrest, motion, disturbance, excitement etc. Amongst the given options, option (3) noise is correct.

For example: Ramu used to be so noisy earlier, has suddenly become quiescent.

**8.(3) Quiet** (adj.)- means peaceful, gentle, motionless, noiseless, silent, etc. Therefore, its antonyms will be uproar, noisy, loud etc.

For example The noisy students of the class suddenly became quiet when the principal entered the class room.

**9.(3) Quilt** (v/adj). means free, clear, abandon, cease, desert, drop, exit, end, vanish, withdrawn, surrender etc. Therefore, its antonyms will be hold, occupy, bind, enforce, enter etc.

For example : As soon as the hero quilt the scene, villain entered to prevail upon the poor in this movie.

**10.(3) Quite** (adv.) means fairly, moderately, rather, fully, perfectly, totally etc. Therefore, its antonyms will be imperfectly, barely, hardly, partially etc. For example :

(i) I am quite confident this time of my success in the exam, as against last time when I was only partially sure.

**11.(A) (1) Peculiar**. The word peculiar means strong, odd, queer, not normal or common etc.

For example : This is a peculiar situation on which even our constitution is silent.

**11B(4)**. The antonym of peculiar is normal as given in option (4).

For example : This rule applies under normal circumstances and not under peculiar ones.

**12.A(2) Razzmataaz** - The word Razzmataaz means pompous show, glittery show, noisy and attractive show or event.

For example : The annual film fare Razzmataaz attracts every one's attention.

**B(1)** The antonym of this word is quiet activity, option (1).

For example : our literary society meetings are not razzmataaz, it is a modest and quite activity.

**13.A(4) Cacophony**- The word Cacophony means noisy din, noise from different sources at the same time, loud and meaningless sound.

For example : During festive occasions, the quiet environs of our locality becomes a scene of cacophony.

*(Continued on Page 103)*

# IMPROVE YOUR VOCABULARY

**Direction (1-17) :** In the following questions certain words are printed in bold followed by four options. You have to select the right word from each group as meaning of the word given in bold.

## 1. Blench

- (1) doubt
- (2) quick movement
- (3) train
- (4) stagger

## 2. Numbness

- (1) null (2) fullness
- (3) hardness (4) sensationless

## 3. Nouveau riche

- (1) landlord (2) noble
- (3) rich
- (4) ostensible rich

## 4. Mercenary

- (1) machinery (2) mercury
- (3) economic (4) generous

## 5. Menial

- (1) of a servant (2) mindful
- (3) unmindful (4) of rich quality

## 6. Deshabille

- (1) expanded (2) loose wearing
- (3) disabled
- (4) inherent qualities

## 7. Flaunt

- (1) demonstrate with pride
- (2) flatter
- (3) rebuke
- (4) reject

## 8. Maroon

- (1) leave some one or desert
- (2) battle (3) malign
- (4) unearth

## 9. Obiter

- (1) obvious fault (2) incidental
- (3) formalities (4) unclarity

## 10. Tantrum

- (1) concrete
- (2) a type of bird
- (3) a type of plant
- (4) full of temper

## 11. Connoisseur

- (1) scientist (2) expert judge
- (3) doubter (4) kind

## 12. Gristle

- (1) tough and elastic
- (2) oily (3) pungent
- (4) heavy

## 13. Maestro

- (1) a magician
- (2) a band master
- (3) top class musician
- (4) music director

## 14. Crooner

- (1) singer

- (2) comfortable sitting
- (3) cook

## 15. Wherewithal

- (1) where about
- (2) hide out
- (3) means for a purpose
- (4) surrounding

## 16. Strident

- (1) loud and harsh sound
- (2) fiery
- (3) luxurious
- (4) fallacy

## 17. Impunity

- (1) free from any punishment
- (2) purity
- (3) frankness
- (4) fallacy

### SHORT ANSWERS

- |         |         |         |         |
|---------|---------|---------|---------|
| 1. (2)  | 2. (4)  | 3. (4)  | 4. (3)  |
| 5. (1)  | 6. (2)  | 7. (1)  | 8. (1)  |
| 9. (2)  | 10. (4) | 11. (2) | 12. (1) |
| 13. (3) | 14. (1) | 15. (3) | 16. (1) |
| 17. (1) |         |         |         |

### ANSWERS WITH EXPLANATIONS

1. (2) **Blench** (vt) means make a quick movement because of fear, flinch etc. For example: The news blenched him for a while.

2. (4) **Numbness** (nu) means loss of sensation, inability to feel something or move; bewildered. For example: The patient felt numbness on the jaw.

Her fingers were numb with cold.

The old man was numbed with grief.

3. (4) **Nouveau riche** (nc) means person who has recently become rich and shows his wealth with proud. The plural of this word is Nouveau riches. For example: Nouveau riches often make a laughable ostentation of their wealth.

4. (3) **Mercenary** (adj) means economic man; working only for money or anything profitable; inspired by love of money. For example: we have got mercenary politicians to rule the country. He always acts from mercenary motives.

5. (1) **Menial** (adj) means lowly, (of a servant; suitable for or to be done by a household servant. For example: wages in USA are high even for menial jobs.

6. (2) **Deshabille** (nu) means loose clothing or dress. For example: Now a

days, boys and girls are seen in deshabille to maintain the latest fashion.

7. (1) **Flaunt** (vt/vi) means show off something to attract attention; ostentatious attention to something or one self, wave proudly. For example: She flaunted her jewellery in the party.

He flaunts his wealth in the company of his friends.

8. (1) **Maroon** (adj)-1. brownish-red colour 2. the word also means to put somebody in a deserted place or any uninhabited place such as desert, coast, mountains, island etc. For example: As our ship lost the radio contact, we were marooned on an island for one week.

9. (2) **Obiter dictum** (nc)- means incidental remark or statement. For example: this statement was acrimonious, but it was an obiter-dictum [plural obiterdicta]

10. (4) **Tantrum** (nc)- fit of bad temper or anger, petulance etc. For example: As soon as he hears any word of protest, he is in tantrum.

11. (2) **Connoisseur** (adj) means an expert judge of any speciality; For example: He is a connoisseur of oil painting.

12. (1) **Gristle** (adj) means tough, elastic substance in animal bodies. For example: I cannot eat this meat because it is mostly gristle.

13. (3) **Maestro** (nc) is a word which means master musical composer. For example: Pandit Ravi Shankar is India's famous sitar maestro.

14. (1) **Crooner** (nc) means a soft voiced singer or one who sings sentimental songs. For example: Lata Mangeshkar is a world-famous crooner.

15. (3) **Wherewithal** (nu) means money, means etc. needed for a certain purpose. For example: In India the government provides wherewithal for orphaned children.

16. (1) **Strident** (adj) means loud and harsh sound, shrill etc. For example: The strident sound of the new machine annoying to all of us.

17. (1) **Impunity** (no) means freedom from punishment, without risk or injury etc. For example: He undertook several unethical tasks with impunity as he was sure he would not be punished or harmed in any way.

# CORRECT USE OF WORDS

Under this column we have explained the difference between similar sounding words having different meaning. This column will help the readers in attempting questions on sentence completion, cloze test, synergisms and antonyms.

EDITOR

## A. ACCEPT, EXCEPT

1. Accept- The word accept means to receive, to agree, to take etc. for example : (i) She has accepted my invitation

(ii) The convict accepted his crime before the judge

2. Except- The except means leave out; All but (in a group or amongst several things). For example : (i) Everybody was present in the party except Bhola (All but Bhola was present in the party).

## B. ACCESS, ASSES, EXCESS.

1. Access- The word access means privileged to avail of something; having something as a matter of status.

For example (1) He has access to the Prime Minister's office. (He can avail of visiting the Prime Minister's office)

(ii) Being in custom service, he has access to duty free goods.

2. Asses- The word asses means to examine, to estimate, to evaluate, to judge etc. For example : (1) One must assess one self every day.

(ii) After assessing my work, my boss found me competent.

3. Excess- The word excess means too much, huge, profuse, bulk, more than needed or required etc.

For example-

(i) Excess of everything is bad.

(ii) We had excess of fun in the holidays.

(ii) I have had excess of vegetable in my Kitchen garden this year, you can take some if you need.

## C. ANGLE, ANGEL

1. Angle- The word angle has two meanings. One meaning of the word angle is the circular unit of measurement expressed in degrees. For example : (i) The walls should be at an angle of 90 degrees from floor.

(ii) The elevation of this plateau is at an angle 30 degrees.

2. The second meaning of the word angle is the line and hook used for fishing. Angling means fishing; for example : (1) He carried his angle to the river bed for fishing.

(ii) Angling is my favourite past time.

3. Angel- The word angel means messenger

of god; chosen representative of god; for example : (i) when I was facing problem, my friend came like an angel to help me:

- (ii) St. Augustine was an angel.
- (iii) She saw an angel in her dream.

## D. ABJECT, OBJECT

1. Abject- The word abject means utterly hopeless. For example : (i) Ram is living in abject poverty.

2. Object- The word object has two meanings. One of the meanings of this word is a thing or noun which is not a subject and is used in a sentence. For example :

(i) Find out the object in the sentence, "The book is on the table." (Here 'book' is subject and table is object or predicate)

3. Object- The second meaning of the word object is aim, goal, or purpose etc. For example :

- (i) What is her object in life?
- (ii) What is the object of this institution?
- (iii) I could not follow the object behind his long speech.

## E. BEAR, BEER, BARE

1. Bear- The word bear has two meanings. One meaning of this word is to tolerate, to withstand etc. For example : (i) I cannot bear my insult.

2. Bear- The second meaning of bear is the name of a wild heavy animal which has fur on its body. For example : (i) You will find bear in the jungles of India.

3. Beer- The word beer is the name of a kind of alcoholic drink, which is intoxicating.

For example :

(i) We drank beer in the party.

4. Bare- The meaning of the word bare is naked, devoid of, very little etc. For example : (1) The girl was bare footed (She was without shoes or slippers).

(ii) Bare a wire before making an electric connection.

(iii) He has barely enough to eat.

## F. SELL, SAIL, SHELL

1. Sell- The word sell means to exchange something for money, to trade. For example : (i) He sells grocery.

(ii) Eggs are sold 12 rupees a dozen.

2. Sail- The word sail means to move a boat

in water with the help of oars. For example : (i) Gulliver sailed his boat nights and days.

3. Shell- The word shell is used for outer hard covering of certain animals usually found in oceans, seas and the other water bodies.

For example : (1) She has a good collection of sea shells.

(ii) Sea-shells look beautiful and are used for the purpose of decoration.

## G. BESIDE, BESIDES

1. Beside - The word beside means by the side. For example :

- (i) Boys were playing beside the street.
- (ii) He sat beside me in the clas.

2. Besides- Besides means apart from. For example : I gave him some money besides giving some food and clothes.

## H. BREAK, BRAKE.

1. Break- The word break means damaged or separated into two or more pieces due to force or strain. For example : (i) you should not break this glass.

2. Brake - The brake means appliance for lessening speed of carriage. For example : I applied brakes and stopped the car.

## I. BRIDL, BRIDLE

1. Bridal- The word bridal means belonging to marriage, or related to bride.

For example : (i) Priya looks beautiful in her bridal dress.

2. Bridle- The word bridle means head gear of a horse.

For example : (i) one cannot control a horse without a bridle.

## J. MORAL, MORALE

1. Moral- The word moral means ethical or related to what is ethically right or wrong; conscience etc.

For example : After being caught red handed while copying in the exam, you have no moral right to argue your case.

2. Morale- The word morale means enthusiasm, supportive etc.

For example : I am thankful to my teacher for keeping my morale high during the board exam.

# SENSING PHRASEOLOGY

## VERBAL IDIOMS

**Directions (1-14) :** In the following questions, each question is an idiom/phrase etc in bold followed by four options one amongst which is the correct meaning of the idiom, or phrase in question. This is your answer.

### 1. Argue the toss

- (1) win the debate
- (2) discuss vigorously
- (3) get angry
- (4) become cynical

### 2. Bark up the wrong tree

- (1) a foolish idea
- (2) unprovoked anger
- (3) make a wrong assumption
- (4) None of these

### 3.(not) Be born yesterday

- (1) be alert to what is happening
- (2) a child
- (3) not a child, but an adult
- (4) lack of common sense

### 4. Be curtains

- (1) raise the curtain
- (2) reveal the secret
- (3) be useless
- (4) end of life or downfall

### 5. Be a cut above some one/ something

- (1) Be jealous of someone
- (2) keep one self aloof
- (3) not interested in practical matters
- (4) be better than

### 6. Be dying for something

- (1) waiting impatiently for something
- (2) on the verge of death
- (3) vow to die for a cause
- (4) belief in immortality

### 7. Be the (absolute) limit

- (1) consider one self as the beginning and the end
- (2) stand tall above the rest

- (3) be someone/ something that annoys or shocks
- (4) feel self-important

### 8. Be new to the game

- (1) enter the field for the first time
- (2) lack experience in something
- (3) some one who has just become an adult
- (4) day-dream about a game

### 9. Be no picnic

- (1) not be an easy or pleasant ex-

perience

- (2) work devoid of picnic
  - (3) uninteresting and boring affair
  - (4) not interested in picnic
- 10. Beat about the bush**
- (1) move along the bush
  - (2) hide one self in the bush
  - (3) talk indirectly about something
  - (4) love for clean environment

### 11. Beat someone at his own game

- (1) a matter of strategy
  - (2) take revenge
  - (3) fight back with same methods
  - (4) always a winner
- 12. Bend over backward**
- (1) regular exercise
  - (2) health conscious
  - (3) humble, servile and lack of self-respect
  - (4) take trouble to do something for some one else.

### 13. Cite the bullet

- (1) to have strong teeth
- (2) ready to face something with courage

### 14. Bite off more than one can chew

- (1) over enthusiastic
- (2) expect too much of one self
- (3) bold and daring step
- (4) to back out at the last moment

## SHORT ANSWERS

- |         |         |         |         |
|---------|---------|---------|---------|
| 1. (2)  | 2. (3)  | 3. (1)  | 4. (4)  |
| 5. (4)  | 6. (1)  | 7. (3)  | 8. (2)  |
| 9. (1)  | 10. (3) | 11. (3) | 12. (4) |
| 13. (2) | 14. (2) |         |         |

## ANSWERS WITH EXPLANATION

**1.(2) Argue the toss** means argue or discuss vigorously, often about something that cannot be changed.

For example : There's no point arguing the toss now. It has already been decided that Jones will be sent to represent the company in Tokyo, not you.

**2.(3) Bark up the wrong tree** means get the wrong idea, make a wrong assumption, accuse the wrong person etc.

For example : If you think it was Penny who gave Mr. Evans wrong information, then you are **barking up the wrong tree**. She wasn't even here when he rang.

**3.(1) (Not) be born yesterday** means (not) be easily deceived; be alert to what is happening..

For example : If you think Joe will believe such a stupid story, you're wrong. He wasn't born yesterday.

**4.(4) Be curtains** (for some one) means be the end of some one's life, lead to some one's down fall.

For example : I wish Jeff wouldn't drive so fast on his motor bike. If he ever fell off, it would be curtain.

**5.(4) Be a cut above some one/ something** means be better than, be in a higher class than some one/something.

For example : The new assistant seems to be extremely efficient. He is certainly a **cut above the last one**.

**6.(1) Be dying for something/to do something** means be waiting impatiently for something, be looking forward to something very much.

For example : The children are dying for the summer holidays.

**7.(3) Be the (absolute) limit** means be someone/something that annoys/exasperates/shocks etc. others intensely.

For example : Well, Pamela really is the limit. I've bought two expensive concert tickets for Saturday, and now she says she is going to someone's party instead.

**8.(2) Be new to the game** means lack experience in an activity, job or situation. For example : You're still new to the game and have a lot to learn. No one will expect you to become a first class journalist over night.

**9.(1) Be no picnic** means not be an easy or pleasant experience.

For example : The oral exam was no picnic. The professor asked me some very tricky questions.

**10.(3) Beat about the bush** means talk indirectly about something; not say directly what you are thinking.

For example : stop beating about

[Cont. on page-103]

# COMPREHENSION TEST

*From this issue we are providing a self evaluation score-scale for the benefit of the readers who take our columns on self-test seriously. This scale will help you in measuring your level of comprehension ability. Your goal should be to achieve the highest level.*

**—Editor**

**Directions (1-5):** In the following questions a passage is given which is followed by questions based on its content. After reading the passage choose the best answer to each question. Answer the questions following the passage on the basis of what is stated or implied in the passage.

Politically and also in matters of ordinary crime, Delhi has become a killer city. How true this is can be judged by the brutal elimination of Lalit and Geetanjali Makan and a third person who merely stood in the way and was gunned down incidentally. It is shocking but true that there are vacancies in the Delhi police for a thousand men, they could not be filled because of a long standing order putting a temporary ban on recruitment. It is only about a fortnight ago that the order was rescinded. And now efforts are being made to recruit new hands from different states. It is a good thing that atleast Delhi will have a metropolitan police force drawn from many states instead of only two or three neighbouring ones. The plan has been there for some time.

Another welcome step is the decision to set up a separate women's wing in the crime branch. The number of cases of rape and intimidation appears to be high. The Police Commissioner regrets the fact that the attitude of men towards working women has not changed while the population of working women has shot up due partly to economic problems arising out of inflation and rising prices.

Delhi's traffic is also a killer. For the first time D.T.C drivers who appear to be deliberately colour blind at traffic lights are being persuaded to observe

traffic rules. A few have been fined for their lapses. The ministry of Home Affairs must read the writing on the wall and provide Delhi with men from other security forces immediately to protect politicians and other concerned persons under threat. The threats cannot be taken lightly.

The Delhi Police chief feels that controlling crime in the capital cannot be the responsibility of the police alone. Help must come from the other quarters as well. Delhi's position calls for this. It is surrounded by other states from where people come and go. Delhi is three times the size of Bombay and six times that of Calcutta. The use of fine crimes in the capital is very high and so is organised crime concerning smugglers of narcotics, gold and other contraband. The Delhi police has moreover to deal with security on a large scale and new types of offences like video piracy.

1. By commenting "D.T.C drivers who appear to be deliberately colour blind at traffic light" the author tries to emphasise that

(1) D.T.C drivers are unaware of the traffic rules.

(2) D.T.C drivers lack enthusiasm for the traffic rules.

(3) D.T.C drivers are dutiful and prompt to the traffic rules.

(4) D.T.C drivers really suffer from colour blindness.

2. The removal of restriction imposed on the recruitment of police personnel in Delhi police is followed just

(1) after the murder of Lalit Makan and his wife

(2) before the murder of some important politicians

(3) None of the above

(4) Not given in the passage

3. Which of the following is not a specific significance of Delhi police?

(1) It has a separate women's wing in the crime Branch.

(2) Its personnel are drawn only from two or three neighbouring states.

(3) It has personnel who are recruited from among the neighbouring states.

(4) None of the above

4. Which of the following is the main cause attributed to a rapid increase in the population of working women?

(1) increasing prices of essential commodities

(2) increasing inflation rate

(3) Both (1) and (2)

(4) None of the above

5. According to the passage which of the following cities is largest in size?

(1) Calcutta

(2) Delhi

(3) Bombay

(4) Not given in the passage

## SHORT ANSWERS

1. (2) 2. (1) 3. (2) 4. (3)  
5. (2)

## SCORE-SCALE

Take this test under strict examination conditions. The scale is useful only if you allot 8 minutes for doing this test.

Score	Scale
5	Excellent
4	Good
3	Fair
Less Than 3	Poor

You must remember the following points while doing the comprehension test

● Quickly go through the question. (*Not more than one minute*)

● Quickly go through the passage now. (*Not more than three minutes*)

Since you have gone through the questions

You will readily know which portions of the passage are important from the point of view of the given questions

● Underline with your pencil the important sentences, words etc. in the passage while doing the first reading after having gone-through the questions.

● Answer doing the questions now. Do only those which you can instantly tackle or tackle with the help of underlined portions. Do not get stuck.

### COMPREHENSION TEST

Move quickly to the next question leaving the ones in which you got stuck. (Not more than 5 to 7 seconds Per Question)

● Keep the questions or the key words in the question which you left (as you could not attempt) in mind.

● Go for the second reading now.

● Second reading should be done even more quickly, keeping in mind the questions which you could not tackle in your first attempt. (Not more than 2 minutes)

● Second reading will also naturally take less time because you have already read the passage once and also referred to it time and again, perhaps while solving the given questions.

● Come back to the questions which you have left earlier. This time you will probably find those questions easier. Or might have already found their answer even as you were reading second time and looking for those answers.

● You should not look for just one answer at a time. If there are more than one (two to three) question left, you should remember the key words of those questions and try to find their answers in a single reading. This requires a little practice. But surely with a little practice this can be achieved.

● If still you fail to get the answer to a particular question, we suggest, you drop the question completely and move to the next set of questions under the next directions. This is important because, time is a crucial commodity in objective type exams. Time is what you don't have much to spare.

All this exercise should not take more than 8 minutes in all even if there are 10 questions in comprehension. With practice and increasing the reading speed this target is quite achievable.

### ANSWERS WITH EXPLANATION

1. (2) The question is: By commenting 'DTC drivers who appear to be deliberately colour blind at traffic light the author tries to emphasise that...' Next, there are the options. Let us examine these options. Before examining the options, it will be necessary to locate the given sentence in the passage. This sentence appears in the third paragraph of the passage. The complete sentence goes as follows:

For the first time, DTC drivers who

appear to be deliberately colour blind at traffic lights are being persuaded to observe traffic rules."

Amongst the given options, option (2) is the most appropriate one. It is: DTC drivers lack enthusiasm for observing traffic rules.

This question can be easily attempted by using the common sense as well as by reading the other options, which would clearly appear to be wrong.

Option (1) DTC drivers are unaware of traffic rules. This is not correct as it is nowhere stated in the passage. Secondly it is a matter of common sense that DTC drivers are experienced and license holders.

2. (1) The removal of restriction imposed on the recruitment of police personnel in Delhi is followed just..... This is a factual question and can be located some where in the passage itself. Therefore, if you have read the passage carefully and underlined the relevant sentence in the first reading stage itself (as suggested) you will have no difficulty in solving this question. In questions like this you can also save your time which can be given to the other questions. Let us now find the relevant sentence in the passage. This is found in the first paragraph of the passage itself. But the answer is nowhere given directly. You will have to use your common sense of judging the sequence of events to arrive at the answer. See the sequence for yourself.

(i) The passage begins by calling Delhi a killer city and the incident of Lalit and Geetanjali Makan's murder is also stated. This means this event is a past event.

(ii) Next, there is a statement about vacancies in Delhi police because of a temporary ban on their recruitment.

(iii) Finally there is a statement about the ban being removed and fresh recruitment order of the personnel in Delhi Police.

All these three events are in a sequence. The Statement

(i) is the statement of the past and the other two statements are in the present.

Now look at the options. After examining the options, we are left with no choice except option (1). After the murder of Lalit Makan and his wife. Because the other options like option (2) Before the murder of some important politicians is nowhere stated

in the passage and is also incorrect according to one's common sense, option (3) None of the above is clearly wrong. And option (4) Not given in the passage also appears inappropriate.

3. (2) The third question, which of the following is not a specific significance of Delhi police, is in reality a question about the wrong or incorrect in being not relevant option from amongst the given options. This becomes more clear as you read the given options.

First of all read the option (1) It has a separate women's wing in the crime branch. This is certainly a correct statement as given in the passage. Read the first sentence of the second paragraph: Another welcome step is the decision to set up a separate women's wing in the crime branch. Options (2) and (3) are mutually contradictory, therefore only one of them has to be correct or of relevance for Delhi police option (2) says Delhi police has its personnel drawn from only 2 or 3 neighbouring states and option (3) says it has personnel recruited from many states instead of only 2 or 3 neighbouring states. Only one of these has to be significant. Therefore read the second last sentence of the first paragraph: It is a good thing that atleast Delhi will have a metropolitan police force drawn from many states instead of two or three neighbouring ones. Option (4) none of these is also clearly out of question. Therefore only option (2) is not of any significance to Delhi Police.

4. (3) The question is about reason(s) for rapid increase in the population of working women. Read the last sentence of the second paragraph.... "While the population of working women has shot up due partly to economic problems arising out of inflation and rising prices". The answer is option (3) which is (1) increasing prices of essential commodities and (2) increasing inflation rate.

5. (2) The answer to this question can be found directly in the passage. Read the last paragraph of the passage in which there is a sentence, "Delhi is three times the size of Bombay and six times that of Calcutta". From this statement it is clear that Delhi is largest in size in comparison to the other cities like Bombay and Calcutta as given in the options.



# CLOZE TEST

**Directions :** In the following passage there are blanks, each of which has been numbered. These numbers are printed below the passage and against each, five words are suggested one of which fits the blank appropriately. Find out the appropriate word.

T.V. is one of the most important 1 of the science. This creation is attractive. Cinema is another 2 medium for education and 3. These play a 4 role in social, political and moral life. It has come to 5 an important place in our life. Cinema, 6 the young boys and girls most.

These days one can find a movie either on one's television set or at a cinema hall. Students are very 7 to see movies. Cinema halls draw 8 crowds in their noon shows because

a number of students 9 schools see movies in these shows and when 10 of the offices are closed:

1. (1) discoveries      (2) inventions      (3) creations      (4) developments      (5) tricks
2. (1) effective      (2) good      (3) ineffective      (4) improper      (5) regional
3. (1) growth      (2) destruction      (3) recreation      (4) learning      (5) people
4. (1) important      (2) decisive      (3) simple      (4) crucial      (5) sorrows
5. (1) exert      (2) occupy      (3) enlarge      (4) vacate      (5) misused
6. (1) attracts

- |                   |                |
|-------------------|----------------|
| (2) dispels       | (3) influences |
| (4) repels        | (5) bridges    |
| 7. (1) repulse    |                |
| (2) curious       | (3) crazy      |
| (4) serious       | (5) positive   |
| 8. (1) huge       |                |
| (2) many          | (3) small      |
| (4) unlimited     | (5) aims       |
| 9. (1) suspending |                |
| (2) missing       | (3) absenting  |
| (4) leaving       | (5) delink     |
| 10. (1) all       |                |
| (2) much          | (3) half       |
| (4) most          |                |
| (5) very          |                |

## SHORT ANSWERS

- |        |         |        |        |
|--------|---------|--------|--------|
| 1. (2) | 2. (1)  | 3. (3) | 4. (4) |
| 5. (2) | 6. (1)  | 7. (3) | 8. (1) |
| 9. (2) | 10. (4) |        |        |

## ANSWERS WITH EXPLANATIONS

**Readers to Note:** From this issue, we are also providing a score-evaluation scale for the benefit of the readers who wish to make the best of our columns on self test.

—Editor

## YOUR SCORE-EVALUATION SCALE

Your score evaluation scale will show best results only if you give yourself 7 minutes to complete this test. Your evaluation is as follows:

Your score (out of 10)	Evaluation
9 or more	Excellent
8	Very Good
6 and 7	Good
5	Fair
less than 5	Poor

## ANSWERS WITH EXPLANATIONS

1. (2) Inventions will be the correct answer. The sentence will be "T.V. is one of the most important inventions of the science". The word 'Invention' is used for anything new that is brought new in the world. It didn't exist before being invented (examples, T.V., Radio, Aeroplanes, Electric bulb etc.). The word discovery means being found out (something that already existed). For example, America, North Pole, elements of periodic table, X-ray etc.). The other options like creations, de-

velopments, tricks are clearly wrong.  
 2. (1) The next sentence has two  
 3. (3) Blanks spaces. Therefore the Complete sentence should be read and both the blanks should be filled together. The complete sentence is Cinema is another effective medium for education and recreation. The other options are wrong. The word good is not as appropriate as effective. The other words regional, ineffective and improper are clearly wrong.

The other choices are growth, destruction, learning and people. It is well known that cinema provides education.

It also provides entertainment. The synonym of entertainment is recreation. The words destruction and people are clearly wrong. Also, recreation is a more appropriate word than growth and learning.

4. (4) These play a crucial role in social, political and moral life. The other choices are important, decisive, simple and sorrows. The words simple and sorrows are clearly inappropriate. However, the words important and decisive can be confusing as both of these words can fit in the blank space. But here the word crucial will be more

appropriate than the other two.

6. (2) It has come to occupy an important place in our life. No other word given in the option will fit in the blank space. The other words are exert, enlarge, vacate, misused. Let us see their uses. 'To exert an important place' means to force or pressurise. 'To enlarge an important place' is a meaningless phase. 'To vacate'.... does not give the sense to the context in which the passage is discussed. Misused cannot be used in the blank, as it makes the sentence meaningless.

6. (1) Cinema attracts the young boys and girls most. The other close choice could have been 'influences'. But as you go on to read the next sentence, you will notice that attracts will be a more appropriate choice. Because the next sentence speaks about cinema drawing crowds in the noon show (largely attended by school children). Therefore the word attracts will be more appropriate. The other words like dispels, repels and bridges are clearly wrong in the context.

7. (3) "Students are very crazy to see movies." The word **crazy** is the most appropriate expression in the above context because it means liking for something to the extent of madness. The other words are repulse, curious, serious and positive as given in the option. None of these are appropriate. Repulse means run away from, hatred etc. Curious means desirous and interested to know something. One may be curious about the climax in a movie, but someone is crazy to see the movies.

8. (1) Question numbers (Blank

9.(2) (spaces) 8, 9 and 10 should

10.(4) be attempted together because all the three blanks are there in a single sentence. When these blanks are filled the sentence will be:

Cinema halls draw huge crowds in their noon shows because a number of students missing schools see movies in these shows, and when most of the offices are closed.

A huge crowd means a big crowd. This makes sense, but the other words many, small, unlimited and aims are wrong. 'Many Crowd' is a wrong phrase. 'Many people in a crowd' is a correct phrase. 'Small crowd' does not give the sense, author want to give. 'Unlimited crowd' would also be meaningless because a crowd will always have countable number of people in it.

Therefore, it cannot become unlimited. Aims is meaningless word in the blank space.

9. (2) Missing is the correct word here. The sense of the sentence is that the students miss their schools to see movies. The other options are not appropriate. Suspending, absenting, leaving, delink are the other words not as appropriate as missing. When a class is suspended, it is suspend for every one. 'Absenting' means taking permission for not coming to the class. 'Leaving' means not coming permanently. 'Delink' means stopping the link or connection.

10. (4) 'Most' is the most appropriate word here, because at noon, most of the offices are closed (according to the author) the reason why the noon shows are crowded in a cinema hall. Not all or half office are closed. Much and very will be the incorrect usage because, office is a countable noun therefore, much cannot be used for the offices. Similarly, the word very is also inappropriate.

(Contd... from page 94)

B(3) The antonym of cacophony is silence, music etc. as given in option (3).

For example : While western pop music is cacophony our classical songs are really music to ears.

14.A(3) Apartheid- The word apartheid means discrimination on the basis of colour.

For example : Apartheid was the state policy followed in South Africa till recently.

B(2) The antonym of apartheid is equal opportunity.

For example : The USA is an equal opportunity society.

15.A(3) Secular. The word secular means non-religious, or without the intervention of religion.

For example : India is a secular society.

B(1) Religious. The antonym of secular is Religious or pertaining to religion.

For example : The Islamic Republic of Pakistan is a religious society.

16.A(1) Dialectic. The word dialectic means the process of dialogue, movement ahead with the help of opposites as thesis, anti-thesis, synthesis.

For example : According to Karl Marx the growth of our society is dialectic.

B(1) The antonym of dialectic is linear movement or movement in a straight line.

For example : According to the early 18th century social thinkers, our society follows linear movement or straight evolution.

17.A(3) Generosity- The word generosity means open hearted, broad minded, ability to give and offer liberally etc.

For example : The generosity of king Ashoka, ensured there was no famine in his kingdom.

B(4) The antonym of generosity is narrow minded or closed minded, stingy, retrogressive etc.

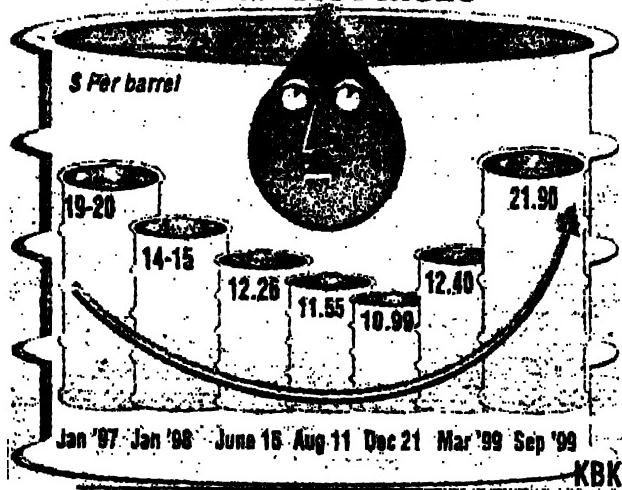
For example : The society suffers if its outlook becomes narrow minded.



# VISUAL GENERAL AWARENESS

## EXPECTED QUESTIONS

### WORLD OIL PRICES



1. According to the above given graph, in which month the world oil price was lowest?

- (1) December
- (2) August
- (3) June
- (4) January

2. The Graph says that the world oil prices was highest in the month of-

- (1) January
- (2) September
- (3) March
- (4) June

3. In the month of September'99 the world price of oil was?

- (1) \$19.20 per barrel
- (2) \$ 21.40 per barrel
- (3) \$ 21.60 per barrel
- (4) \$ 21.90 per barrel

4. On December 21, world oil price came to its lowest mark. What was the price on that date?

- (1) \$ 10.99 per barrel
- (2) \$ 11.55 per barrel
- (3) \$ 11.25 per barrel
- (4) \$ 11.75 per barrel

5. According to the above given graph, the last month September'99 ended on a-

- (1) negative note
- (2) positive note
- (3) satisfactory note
- (4) None of these

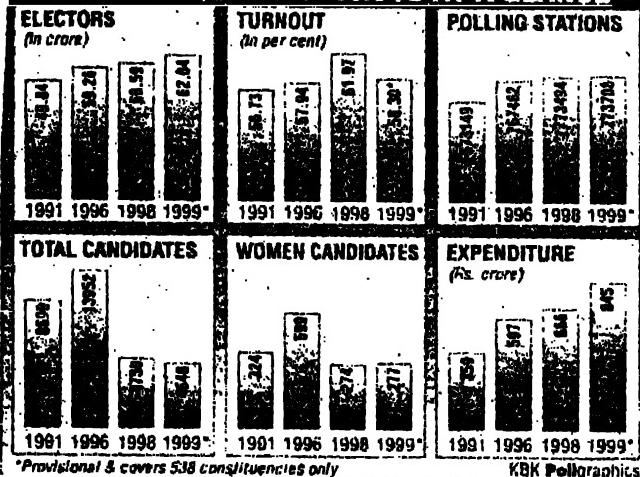
This is only the second issue of this topic 'Visual General Awareness' and I got an overwhelming response from our readers on the very first issue. Therefore, we are going to continue with this column. As we have already told you earlier, that in modern one-day examinations there remain so many data-based questions. Graphs and Data are very useful to the aspirants of all one-day competitive aspirants. Graphs are question banks in themselves with latest performance of any sector of the economy and every activity of a nation and world. Like earlier issue, in this issue some graph-based question are given with the answers in the end. I hope that this column will be highly beneficial to the aspirants of one-day competitive exams.

—Editor

6. In which period the world oil prices per barrel was second highest?

- (1) January'97
- (2) January'98
- (3) March'99
- (4) September'99

### ELECTIONS '99: KEY FACTS AT A GLANCE



7. What was the total turnout (in per cent) in the recently held 1999 Lok Sabha elections?

- (1) 58.30
- (2) 61.97
- (3) 56.73
- (4) 57.94

8. The number of total candidates was highest in-

- (1) 1991
- (2) 1996
- (3) 1998
- (4) 1999

9. The total Government expenditure in the 1999 elections was-

- (1) Rs. 666 crores
- (2) Rs. 597 crores
- (3) Rs. 845 crores
- (4) None of these

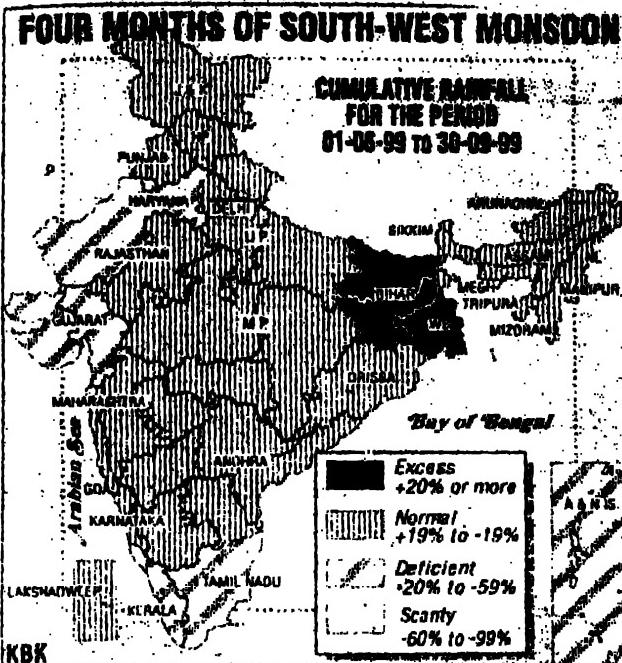
10. The number of women candidates in the recently-held 1999 Lok Sabha elections was-

- (1) 277
- (2) 274
- (3) 599
- (4) 324

11. The number of total electors in the 1999 Lok Sabha elections was-

- (1) 60.59 crore
- (2) 60.25 crore
- (3) 62.04 crore
- (4) 49.84 crore

12. The number of women candidates was highest in-
- 1991
  - 1996
  - 1998
  - 1994



13. According to the above graph which region got excess rainfall in the cumulative period?

- Bihar
- West Bengal
- Orissa
- Both (1) and (2)

14. According to the above graph scanty rain was observed in-

- Rajasthan
- Gujarat
- Tamil Nadu
- All the above

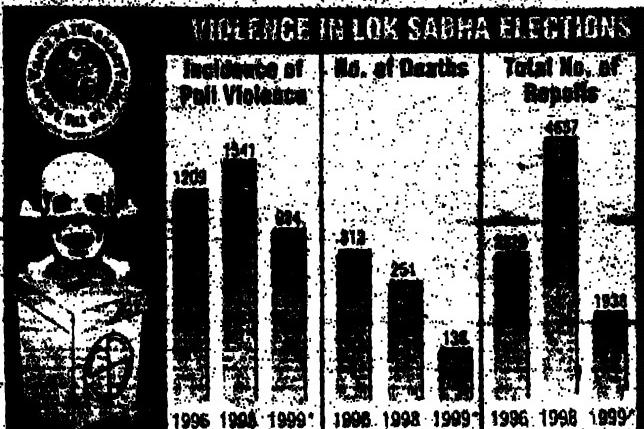
15. According to the above graph excess rainfall means-

- + 20% or more
- + 19% to -19%
- + 19% or more
- None of these

16. Deficient rainfall means-

- 20% or more
- 59% or more
- 20% to - 59%
- 60% to - 99%

### VIOLENCE IN LOK SABHA ELECTIONS



#### Details of deaths in 1999\* election:

Land mine blasts and violence by insurgents and extremists	63
Violent incidents during the poll period	55
Total	138
Of these Security and Poll Personnel	74

Provisional

KVK Pollgraphics

17. The total no. of Deaths in the recently held Lok Sabha elections 1999 was-

- 138
- 251
- 313
- 323

18. The total no. of Repolls in the Lok Sabha elections 1999 was-

- 1998
- 1997
- 2826
- 2832

19. The highest no. of Repolls was held in-

- 1999
- 1998
- 1996
- 1991

20. Incidence of poll violence was highest in the year

- 1999
- 1998
- 1996
- 1991

### SHORT ANSWERS

- |         |         |         |         |
|---------|---------|---------|---------|
| 1. (1)  | 2. (2)  | 3. (4)  | 4. (1)  |
| 5. (1)  | 6. (1)  | 7. (1)  | 8. (2)  |
| 9. (3)  | 10. (1) | 11. (3) | 12. (2) |
| 13. (4) | 14. (4) | 15. (3) | 16. (3) |
| 17. (1) | 18. (1) | 19. (2) | 20. (2) |

**Practice makes a man perfect**

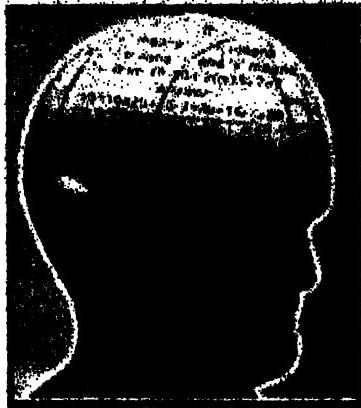
**BUT FOR CANDIDATES OF COMPETITIVE EXAMS MERE PRACTICE IS NOT ENOUGH**

If you need a properly guided practice; acknowledge your guide to success now.

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# Improve Your Reasoning

## CODING DECODING

### TYPE-II CODE CONSISTING OF A GROUP OF WORDS

In this type of questions a group of words or a sentence as a whole is coded and on the basis of common words you are required to ascertain the code for each word. For instance, consider the following example :

**Ex.** In a certain code language "sam tap" means "Play Game" and "tap rem" means "Fair Game". What is the code for "Game" in that code language?

**Answer :**

sam tap → Play Game ....(i)

tap rem → Fair Game ....(ii)

In both the statements the common word is Game and the common code is tap. It means that the code for Game is tap.

Now we can determine the code for other words also. Thus,

The code for Play → sam.

The code for Fair → rem.

The code for Game → tap

Thus, in this type of questions you have to find out the common words and the common codes given in the statements.

Now consider the following examples :

**Ex.1.** In a certain code language "lee ra de" means "what was it", "mo nil" means "you go", "nil pom ra" means "you like it" and "tok lee fo" means "she was sick". How will "what you like" be written in that code language?

(1) pom nil ra

(2) pom ra lee

(3) nil ra lee

(4) Data inadequate

(5) None of these

[SBI Associates P.O. Exam, 18.07.1999]

**Answer : (5)**

lee [ra] de → what [was] ... (i)

mo [nil] → [you] go

nil pom [ra] → [you] like ... (ii)

tok [lee] fo → she [was] sick

Thus,

Code for what → de

Code for you → nil

Code for it → ra

Code for like → pom

de nil pom → what you like

**Ex.2.** In a certain code language "phi lem ta" means "you are good", "lem se par" means "they are well", "par lem mag" means "they are innocent", "jest hest mag lem" means "cows are generally innocent" and "phi gir" means "you go". What will be the code for "they are good innocent" in that language?

(1) lem par mag ta

(2) phi par mag ta

(3) par mag ta jest

(4) Cannot be determined

(5) None of these

[BSRB, Delhi Bank P. O. Exam., 01.08.1999]

**Answer : (1)**

phi [lem] ta → [you] are good

[lem] se par → they [are] well

phi [lem] ta → [they] are good

phi [lem] ta → [they] are good

(phi) gir → (you) go

Thus,

they → phi

are → lem

good → ta

innocent → mag

**Ex.3.** In a certain code language :

(A) "pod nu jec" means "very bright boy".

(B) "tam nu pod" means "the boy comes".

(C) "nu per ton" means "keep the doll".

(D) "jec ton su" means "very good doll".

Which of the following means "bright" in that code language?

(1) na ..... (2) nu

(3) pod ..... (4) ton

(5) None of these

[BSRB, Baroda Agriculture Officers' Exam., 28.02.1999]

**Answer : (1)**

phi [na] [ec] → [very] bright [boy] ... (A)

tam nu [pod] → the [boy] comes ... (B)

nu per ton → keep the doll ... (C)

[jec] ton su → [very] good doll ... (D)

From statements (A), (B) and (D)

na → bright

**Directions (4-6) :**

In a certain code language :

(a) "im-jee loo" means "you did it".

(b) "joo ip am" means "how are things".

(c) "loo sam" means "you sing" and

(d) "am pee joo" means "things are sweet".

Now answer the questions given below :

**Ex.4.** Which of the following is the code for "how"?

(1) joo ..... (2) ip

(3) am

(4) Cannot be determined

(3) None of these

Ex.6. What is the code for "you sing sweet"?

(1) loo sam am

(2) loo pee joo

(3) pee sam loo

(4) Cannot be determined

(5) None of these

Ex.6. Which of the following is the code for "it"?

(1) im                   (2) jee

(3) loo

(4) Cannot be determined

(5) None of these

[BSRB, Bangalore Bank P.O. Exam, 15.03.1998]

#### **ANSWERS WITH EXPLANATION**

im jee (loog) → you did it ..(a)

loo ip am → how are things ..(b)

loo sam → you sing....(c)

loo pee loo → things are sweet ..(d)

Thus,

loo → you

ip → how

sam → sing

pee → sweet

joo am → things are

4.(2) It is clear that code for "how" "ip".

5.(3) you → loo

sing → sam

sweet → pee

6.(4) The code for "it" may be either "im" or "jee".

Ex.7. In a certain code language "ap rib to" means "write the answer", "luk to pat" means "ask the question" and "pat ap to" means "ask the answer". What is the code for "write"?

(1) to                   (2) rib

(3) ap                   (4) luk

(5) None of these

[BSRB, Mumbai Clerical Exam., 27.06.1998 : Evening Shift]

Answer : (2)

rib (to) → write (answer)

rib (to) pat → ask (the question)

pat (to) Luk → ask (the answer)

It is clear that rib stands for write.

Ex.8. In a certain code language "jo re ka" means "sweet nice sugar", "la fi de" means "tasty sour lemon", "la ka tip" means "sugar and lemon" and "la re" means "nice tasty". How will "sweet and sour" be written in that code language?

(1) Data inadequate

(2) jo re ka

(3) la re ka

(4) la re tip

(5) None of these

[BSRB, Mumbai Clerical Exam., 27.06.1998 : Morning Shift]

Answer : (5)

jo (re) ka → sweet nice sugar

la (fi) de → tasty sour lemon

la (ka) tip → sugar and lemon

la (re) → nice tasty

Thus, it is clear that :

Code for sweet → jo

Code for and → tip

Code for sour → de

Ex.9. In a certain code language "ais bel loi" means "I played cricket", "imi ais gul" means "I play tennis", "loi psi tul" means "he played football". Which of the following means "played" in that code language?

(1) Data inadequate

(2) psi                   (3) loi

(4) tul                   (5) None of these

[BSRB, Patna Clerical Exam., 25.04.1998]

Answer : (3)

ais bel (lo) → I played cricket

imi (ais) gul → I play tennis

psi tul → he played football

It is clear that loi stands for played.

Ex.10. In a certain code language "rib nit ka" means "telephone is essen-

tial"; "sin fa de" means "regular good service" and "rib sin" means "essential service". How will "regular service" be written in that code language?

(1) sin fa                   (2) sin de

(3) rib sin

(4) Data inadequate

(5) None of these

[BSRB, Chandigarh Clerical Exam, 29.11.1998]

Answer : (4)

rib nit ka → telephone is essential

rib fa de → regular good service

rib sin → essential service

It is clear that the code for service → sin.

But we cannot determine the code for regular.

The code for regular may be either fa or de.

Ex.11. In a certain code language "chi ke la" means "this is book", "fu ne ke" means "read the book", "di va ro" means "write with pen" and "va ne pa" means "read and write". How will "this is pen" be written in that code language?

(1) chi la ro                   (2) chi lo di

(3) chi di ro

(4) Data inadequate

(5) None of these

[BSRB, Lucknow Clerical Exam., 20.12.1998]

Answer : (4)

chi (ke) la → this is book ... (i)

fu ne (ke) → read the book .... (ii)

di (va) ro → write with pen .... (iii)

va ne pa → read and write ... (iv)

From statements (i) and (ii)

chi la → this is

But we cannot determine the code for pen.

The code for pen may be either di or ro.

Ex.12. In a certain code language "pik na sud" means "you may go", "na joc ta" means "come and go" and "joc pe rod" means "boy and girl". Which of the following means "boy" in that code





**FOR RAILWAY EXAMS**

# **PSYCHOLOGICAL TEST**

## **PART-7**

In the previous issue of PRATIYOGITA KIRAN we provided a set of 40 questions on Route Search for practice and guidance. We feel very glad to know that a large number of candidates are benefitted by this column and their number keeps on increasing gradually. In the present issue we are providing a set of 40 questions on Non-Verbal Analogy for practice. Everybody knows that practice makes one perfect and perfectness is essential to perform better in the examination. Taking this very fact into account we always strive to provide adequate and up-to-date study material and practice sets. Nevertheless, your suggestions, advice and complaints are our true instructors and we do our best to abide by your suggestions. Therefore, we always welcome your positive responses.

—Editor

### **NON-VERBAL ANALOGY**

Total No. of questions  $\Rightarrow$  40 Time Allotted  $\Rightarrow$  7 Min. (Approx.)

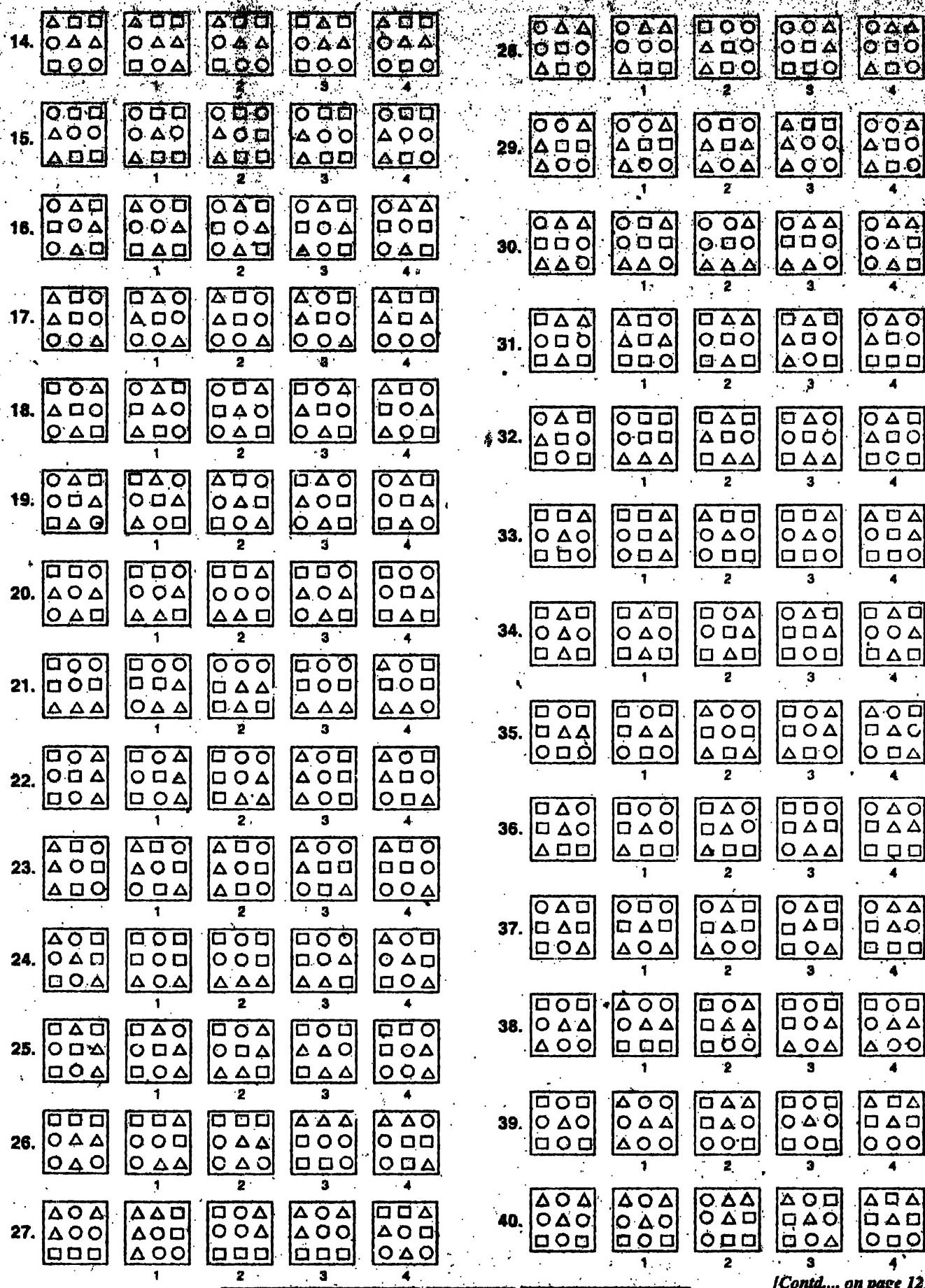
To solve 40 questions on Non-Verbal Analogy usually 7 minutes time is provided. But you must try to solve these questions well before the time limit say within 5-6 minutes so that you can perform better in the exam proper. You can acquire SPEED & ACCURACY in this section through extensive practice. We hope, the present set of 40 questions will serve this purpose very well. Try to solve all the questions correctly within the stipulated time.

**Directions (1-40) :** In each of the following questions a box containing some geometrical figures is given at the left followed by four such boxes marked (1), (2), (3) and (4) containing similar geometrical figures. You are required to find out the box which contains the geometrical figures in the same order as that of the box given at the extreme left. The number of that box which contains the geometrical figures in the same order is the answer. Mark your answer by blackening the appropriate circle on the Answer Sheet.

1. 1 2 3 4
  
2. 1 2 3 4
  
3. 1 2 3 4
  
4. 1 2 3 4

5. 1 2 3 4
  
6. 1 2 3 4
  
7. 1 2 3 4
  
8. 1 2 3 4
  
9. 1 2 3 4
  
10. 1 2 3 4
  
11. 1 2 3 4
  
12. 1 2 3 4
  
13. 1 2 3 4

**PSYCHOLOGICAL TEST**



*[Contd.... on page 121]*

# DATA INTERPRETATION

**Directions (1-5) :** Study the following table and answer the questions given below.

## ARCHITECTS OF INDIA'S DESTINY

Educational qualifications of members of the 12th Lok Sabha		
	Male	Female
Doctorates	26	4
Post Graduates	127	10
Graduates	227	10
St. Cambridge	1	1
Under Graduate	1	1
Matriculate	1	1
Under Metric	1	1
Intermediate	1	1
Diploma	1	1
Illiterates	1	1
Total no. of members for whom data is available		
	532	53

1. The total number of Lok Sabha members for whom data is available here is-

- (1) 532
- (2) 547
- (3) 555
- (4) 500

(5) None of these

2. In the 12 th Lok Sabha the ratio of male and female Doctorates was-

- (1) 2 : 13
- (2) 13 : 2
- (3) 15 : 2
- (4) 2 : 15
- (5) 13 : 15

3. The percentage of Doctorates, Post Graduates and Graduates in the total number of Lok Sabha members (as per the given data) is-

- (1) 75%
- (2) 80%
- (3) 79%
- (4) 70%

(5) None of these

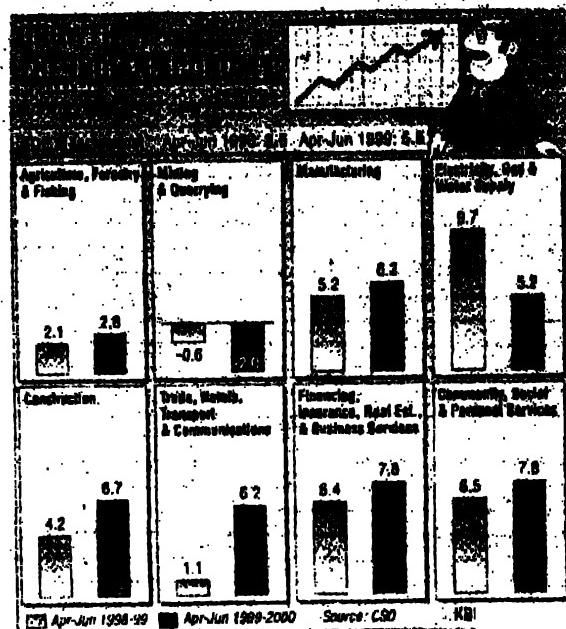
4. Which of the following statement(s) is/are correct :

- (1) Number of Under Metric members is larger than Matriculate female member numbers
- (2) Number of male Doctorate is larger than the number of female Post Graduates
- (3) There is only one male Under Graduate
- (4) 1 and 2
- (3) 1, 2, and 3

5. The difference between total number of Doctorates and total number of Illiterates is-

- (1) 0
- (2) 30
- (3) 4
- (4) 26
- (5) - 30

**Directions (6-10) :** Study the following graphs and answer the questions given below this on the basis of the data available in the graphs.



6. In 1999-2000, highest growth rate was followed in-

- (1) Financing Services
- (2) Community Services
- (3) Manufacturing
- (4) Construction
- (5) 1 and 2

7. In 1999-2000, lowest growth rate was experienced in

- (1) Construction
- (2) Mining
- (3) Electricity
- (4) Trade
- (5) None of these

8. The difference between growth rate in 1998-1999 and 1999-2000 was the highest in-

- (1) Trade
- (2) Community Services
- (3) Mining
- (4) Financing Services
- (5) None of these

9. In 1999-2000 the average growth rate for Agriculture, Forestry & Fishing and Construction was-

- (1) 2.8%
- (2) 6.7%
- (3) 3.9%
- (4) 7.75%
- (5) None of these

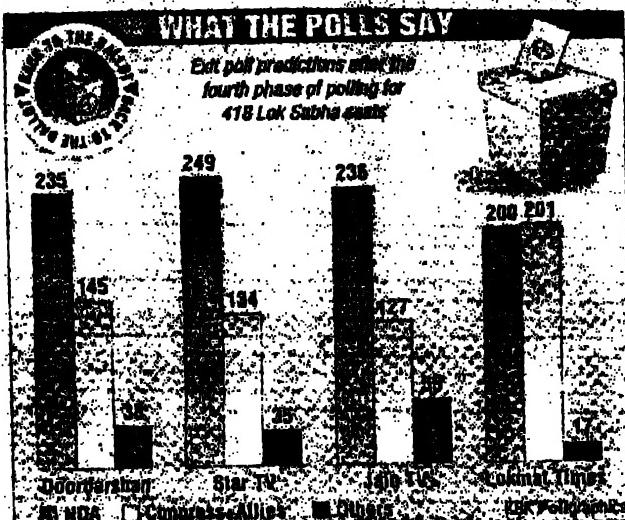
10. Which of the following statement(s) is/are correct :

- (1) The growth rate for Mining & Quarrying was higher in 1999-2000 in comparison to in 1998-99.
- (2) The growth rate for Mining & Quarrying in 1998-99 was higher in comparison to growth rate in 1999-2000.
- (3) In both the years 1998-1999 and 1999-2000 Mining & Quarrying experienced negative growth
- (4) 2 and 3

**DATA INTERPRETATION**

(5) None of these

**Directions (11-15) :** Answer the following questions on the basis of the data available in the table given below :



11. In which of the following, highest number of seats for NDA was predicted :

- (1) Doordarshan      (2) Star T.V.  
 (3) Jain T.V.      (4) Lokmat Times  
 (5) None of these

12. As per all the predictions, how much seats the Congress and Allies would get in average?

- (1) 134      (2) 145  
 (3) 152      (4) 127  
 (5) 201

13. What is the difference between the seats predicted for the NDA by the Lokmat Times and the average of the seats predicted for NDA by all others?

- (1) 35      (2) 26  
 (3) 55      (4) 200  
 (5) 40

14. Which of the following predicted-highest seats for others :

- (1) Star T.V.      (2) Lokmat Times  
 (3) Doordarshan      (4) Jain T.V.  
 (5) None of these

15. The difference between average of the seats predicted by all the medias for NDA, and for the Congress & Others is-

- (1) 78  
 (2) 82  
 (3) 56  
 (4) 69  
 (5) 55

**Directions (16-20) :** Answer the following questions on the basis of the table given below :

**VOTER'S PARTICIPATION IN LOK SABHA ELECTIONS**

Year	Total no. of Electorate	Votes actually polled
1952	17,32,13,635	10,50,44,795
1957	19,36,52,069	12,34,81,815
1962	21,63,72,215	11,99,04,315
1967	24,90,03,334	15,27,24,811
1971	27,40,94,493	15,15,36,802
1977	32,11,74,327	19,42,63,915
1980	35,55,80,700	20,24,05,413
1984	39,98,16,294	24,95,85,344
1989	49,89,06,429	30,80,30,508
1991	51,41,26,380	27,52,05,803
1996	60,25,72,268	33,48,73,246
1998	60,68,84,103	37,54,54,034

16. The number of notes polled was the highest in-

- (1) 1996      (2) 1999  
 (3) 1998      (4) 1991  
 (5) 1952

17. Among the given options, in which year the number of votes actually polled was the highest :

- (1) 1952      (2) 1957  
 (3) 1967      (4) 1962  
 (5) Cannot be determined

18. The difference between total number of electorate in 1952 and 1998 is-

- (1) 27, 5530612      (2) 26, 5530612  
 (3) 43, 26,70,468      (4) 422670468  
 (5) 112625222

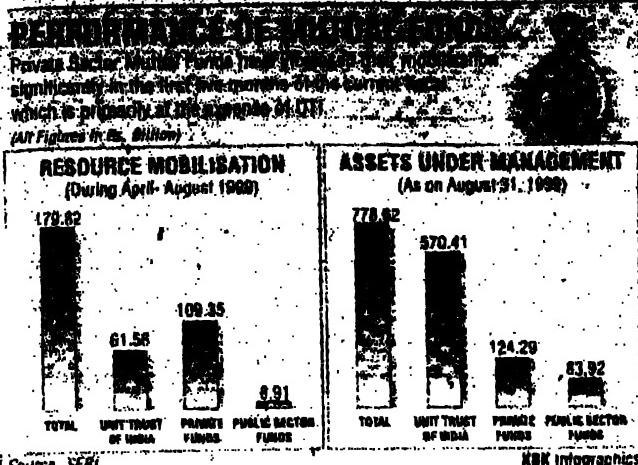
19. The rate of increase in votes actually polled in 1998 in comparison to 1996 is-

- (1) 15%      (2) 10.8%  
 (3) 13%      (4) 8.5%  
 (5) 9%

20. Decline in votes actually polled in comparison to the immediately preceding election was noticed in the year-

- (1) 1962      (2) 1991  
 (3) 1971      (4) 1,2 and 3  
 (5) None of these

**Directions (21-25) :** Answer the following questions on the basis of the data available in the table given below :



21. The contribution of the Unit Trust of India in the total resource mobilised in the first five months of 1999 was-

- (1) 25%
- (2) 30%
- (3) 39%
- (4) 34.23%
- (5) 42%

22. On August 31, 1999, the average of the assets under Unit Trust of India, Private Funds and Public Sector Funds was-

- (1) Rs. 259.54 billion
- (2) Rs. 159.54 billion
- (3) Rs. 250.34 billion
- (4) Rs. 395.54 billion
- (5) None of these

23. The average resource mobilisation was-

- (1) Rs. 40.94 billion
- (2) Rs. 59.94 billion
- (3) Rs. 65.50 billion
- (4) Rs. 46.94 billion
- (5) Rs. 46.50 billion

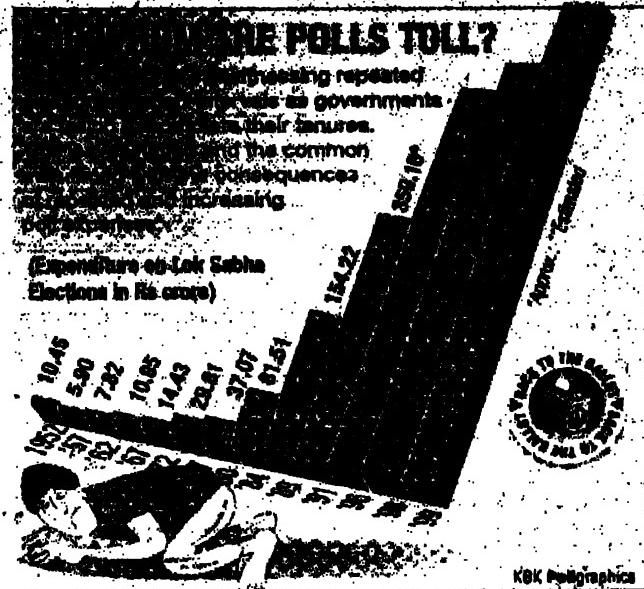
24. Resource mobilised by Public Sector Funds was approximately

- (1) one twelfth of the Private Funds
- (2) one ninth of the Private Funds
- (3) one tenth of the Private Funds
- (4) one eighth of the Private Funds
- (5) None of these

25. The difference between assets under UTI and other two sectors as on 31st August was-

- (1) Rs.342.2 billion
- (2) Rs.242.2 billion
- (3) Rs. 363.2 billion
- (4) Rs.623.2 billion
- (5) Rs.592.3 billion

**Directions (26-30) :** Answer the following questions on the basis of data available in the following graph :



26. In which of the following years election expenses was more than double of the expenses in the previous election:

- (1) 1984
- (2) 1999
- (3) 1977
- (4) 1962
- (5) 1998

27. The difference between the highest and lowest election expenses is-

- (1) 739.55 crores
- (2) 345.75 crores
- (3) 839.55 crores
- (4) 844.1 crores
- (5) None of these

28. Increase in expenses in 1999 in comparison to 1952 is-

- (1) 8.97%
- (2) 8%
- (3) 8033.97%
- (4) 80.97%
- (5) 800.97%

29. The total increase in election expenses in comparison to the previous election was the highest in the year-

- (1) 1999
- (2) 1998
- (3) 1996
- (4) 1991
- (5) None of these

30. In which of the following years the total expenses was/were less than that of 1952?

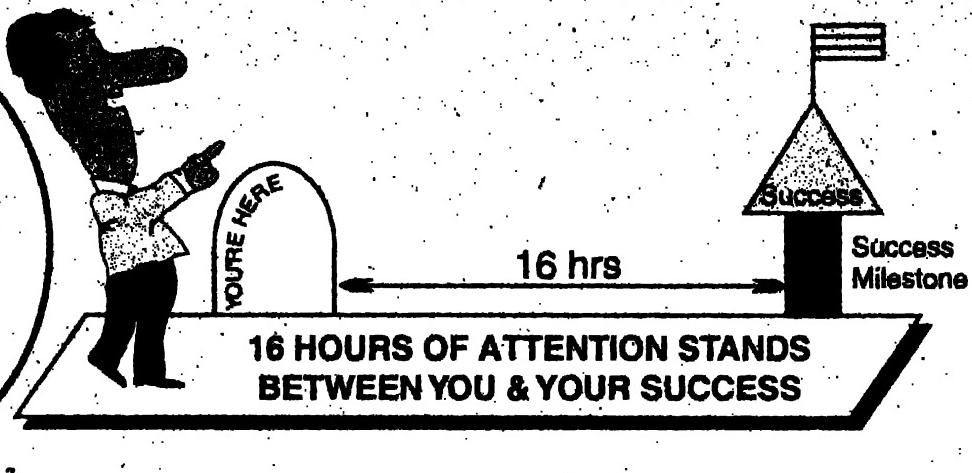
- (1) 1957
- (2) 1962
- (3) 1967
- (4) 1972
- (5) 1957 and 1962

**Directions (31-35) :** Answer the following questions on the basis of the table given below :

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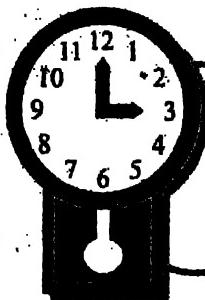
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**DATA INTERPRETATION**

The number of female Post Graduates = 16.

Therefore option (2) is also correct.

As option (3) is incorrect and options 1 and 2 are correct, so the answer is (4).

5.(2) The total number of Doctorates = 30.

The number of illiterate = 0

Therefore the difference

$$= 30 - 0 = 30$$

6.(5) Growth rate in case of Financing Services = 7.8%

Growth rate in Case of Community Services = 7.8%

This shows that in both these sectors the growth rate was equal; But 7.8% is the highest growth rate experienced by any sector. So the answer is (5).

7.(2) In the Mining & Quarrying sector growth was - 2.0%

8.(1) The difference in the growth rates in trade

$$= 6.2 - 1.1 = 5.1$$

The difference in Community Services

$$= 7.8 - 6.5 = 1.3$$

The difference in Mining

$$= (-2.0) - (-0.6) = 1.4$$

The difference in Financing Services

$$= 7.8 - 6.4 = 1.4$$

This shows that the difference is highest in trade.

9.(4) The average growth rate for Agriculture, Forestry & Fishing and

Construction =  $\frac{2.8 + 6.7}{2}$

$$= 9.5 = 4.75\%$$

10.(4) Mathematically - 0.6 is larger than - 2.0. Therefore Statement (2) is correct.

Again, in both the years negative growth rate was experienced, so statement (3) is also correct.

Therefore the answer is (4).

11.(2) According to the Star T.V. NDA would get 249 seats.

12.(3) Average of the seats predicted for the Congress & Allies

$$= \frac{145 + 134 + 127 + 201}{4} = 151.75$$

= 152 (Approx.)

13.(5) Seats predicted for NDA by Lokmat Times = 200

The average of seats predicted for NDA by all others

$$= \frac{235 + 249 + 236}{3} = 240$$

$\therefore$  The difference =  $240 - 200 = 40$

14.(4) The highest seats for the others was predicted by Jain T.V. (55)

15.(1) Average of the seats predicted for the NDA

$$= \frac{235 + 249 + 236 + 200}{4} = 230$$

Average of the seats predicted for the Congress & Allies

$$= \frac{145 + 134 + 127 + 201}{4}$$

$$= 151.75 = 152 (\text{approx.})$$

$\therefore$  The difference =  $230 - 152 = 78$

17.(3) Among the given option the number of votes actually polled was the highest in 1967 (15, 27, 24, 611)

18.(3) The difference = 60, 58, 84, 103 - 17, 32, 13, 635

$$= 43, 26, 70, 468$$

19.(2) Total increase in votes actually polled

$$= 37, 54, 54, 034 - 334873286$$

$$= 40580748$$

$\therefore$  The rate of increase

$$= \frac{40580748}{375454034} \times 100$$

$$= 10.8\% (\text{approx.})$$

20.(4) Decline can be followed in the years 1962, 1971 and 1991.

Therefore, the answer is (4)

21.(4) The contribution of the Unit Trust of India

$$= \frac{6156}{179.82} \times 100$$

$$= 34.23\% (\text{approx.})$$

$$22.(1) \text{ The average} = \frac{778.62}{3}$$

$$= \text{Rs. } 259.54 \text{ billion}$$

23.(2) Average

$$= \frac{\text{Total Resource Mobilised}}{3}$$

$$= \frac{179.82}{3}$$

= Rs. 46.94 billion

24.(1) Public Sector Funds is

$$= \frac{109.35}{8.91}$$

= 12 (approx.) times of the Private Funds

$\therefore$  The answer is (1).

25.(3) Assets under UTI = 570.41 billion

Assets under other two sectors

$$= 124.29 + 83.92$$

$$= 208.21 \text{ billion}$$

$\therefore$  The difference = 570.41 - 208.21

$$= \text{Rs. } 362.2 \text{ billion}$$

26.(1) The expenses in 1980

$$= 37.07 \text{ crores}$$

In the following election (1984) the expenses = 81.51 crores

This shows that in 1984 expenses was more than double of what had been in 1980.

27.(4) The lowest expenses = 5.90 crores

The highest expenses = 850 crores

$\therefore$  The difference = 850 - 5.90

$$= 844.1 \text{ crores}$$

28.(3) The rate of increase

$$= \frac{850 - 10.45}{10.45} \times 100$$

$$= \frac{839.55}{10.45} \times 100$$

$$= 8033.97\%$$

29.(3) The total increase in 1999

$$= 223.6 \text{ crores}$$

The total increase in 1998

$$= 28.06 \text{ crores}$$

The total increase in 1996

$$= 2.38.24 \text{ crores}$$

The total increase in 1991

$$= 204.88 \text{ crores}$$

$\therefore$  The total increase was the highest in 1996.

30.(5) In 1957, the total expenses

$$= 5.90 \text{ crores}$$

In 1962, the total expenses

$$= 7.82 \text{ crores.}$$

$\therefore$  The total expenses in 1957 and 1962 were less than total expenses in 1952 (Rs. 10.45 crores)

• • •

# IMPROVE YOUR MATHEMATICS

To most of the students, Mathematics has been a scaring subject, perhaps since time immemorial. The present day convent educated generation finds Mathematics even more burdensome. We have made our best efforts to remove the difficulties of the students through this column. In this column the formulae and short cut methods for solving the question have been presented in a very simple and convincing way.

Once you go through this column thoroughly you will not only find a change in your attitude and perception towards Mathematics, but even feel magical and miraculous change in your mathematical efficiency. We hope this column of our magazine will prove a friend, philosopher and guide to each and every such student who finds Mathematics different and boring, irrespective of his level of intelligence. This column certainly provides 100 percent guidance in clearing the basic concept and hence achieving the target.

—Editor

## PROBLEM BASED ON AGES

This is the very important chapter for any one-day competitive exam. To solve these problems, students are required the knowledge of linear equations but this method needs some basic concepts as well as some more time than it deserves. Therefore, for the convenience of students, we have tried to evaluate some easier as well as short-cut methods to solve questions based on the above topic. Generally the following types of questions are asked in one-day competitive exams.

### TYPE-I

$T_1$  years earlier the father's age was  $x$  times that of his son. At present the father's age is  $y$  times that of his son. What are the present ages of the son and the father?

In this case

$$\text{Son's age} = \frac{T_1(x-1)}{x-y}$$

Ex.1. The age of the father 3 years ago was 7 times the age of his son. At present the father's age is five times that of his son, what are the present ages of the father and the son?

#### Sol. Conventional Method

Let the present age of son =  $x$  years

Then, the present age of father

=  $5x$  years

3 years ago,

$$7(x-3) = 5x-3$$

$$\text{or, } 7x-21 = 5x-3$$

$$\text{or, } 2x = 18$$

$$\therefore x = 9 \text{ years}$$

$$\therefore \text{Son's age} = 9 \text{ years}$$

$$\text{and Father's age} = 45 \text{ years}$$

### TRICK:

$$\text{Son's age} = \frac{(4-1) \times 3}{5-4}$$

$$= 9 \text{ years}$$

$$\text{and father's age} = 9 \times 5 = 45 \text{ years}$$

### TYPE-II

The present age of the father is  $y$  times the age of his son.  $T_2$  years hence, the father's age becomes  $z$  times the age of his son. What are the present ages of the father and his son?

$$\text{Son's age} = \frac{(z-1)T_2}{y-z}$$

Ex.2. At present the age of the father is 6 times that of the age of his son. 2 years hence, the father's age would be 5 times that of his son. Find the present ages of the father and the son.

#### Sol. Conventional Method

Let present age of son =  $x$  years

Then, the present age of father

=  $6x$  years

2 years hence,

$$5(x+2) = 6x+2$$

$$\text{or, } 5x+10 = 6x+2$$

$$\therefore x = 8 \text{ years}$$

Therefore, son's age = 8 years

and father's age =  $6 \times 8 = 48$  years

### TRICK :

$$\text{Son's age} = \frac{(5-1) \times 2}{6-5} = 8 \text{ years}$$

$$\therefore \text{Father's age} = 8 \times 6 = 48 \text{ years}$$

### TYPE-III

$T_1$  years earlier the age of the father was  $x$  times the age of his son.  $T_2$  years hence, the age of the father becomes  $z$  times the age of his son. What are the present ages of the son and the father?

$$\text{Son's age} = \frac{T_2(z-1) + T_1(x-1)}{(x-z)}$$

Ex.3. Four years ago the father was 6 times as old as his son. Three years hence the father's age would be 3 times that of his son. What are the present ages of the father and the son?

#### Sol. Conventional Method.

Let the present age of son =  $x$  years and the present age of father =  $y$  years

4 years ago

$$6(x-4) = y-4$$

$$\text{or, } 6x-24 = y-4$$

$$6x-y = 20 \dots (i)$$

3 years hence,

$$3(x+3) = y+3$$

$$\text{or, } 3x+9 = y+3$$

$$\text{or, } 3x-y = -6 \dots (ii)$$

From equations (i) and (ii):

$$3x = 26$$

$$x = \frac{26}{3} \text{ years}$$

and  $y = 32$  years

### TRICK :

$$\text{Son's age} = \frac{3(3-1) + 4(6-1)}{(6-3)}$$

$$= \frac{3 \times 2 + 4 \times 5}{3}$$

$$= \frac{6+20}{3} = \frac{26}{3}$$

$\therefore$  Father's age

$$= \frac{26}{3} \times 3 + 6 = 32 \text{ years}$$

### TYPE-IV

The sum of the ages of a father and his son is  $T$  years. Also  $x$  years ago the father's age was  $y$  times the age of his son. What are the present ages of the father and the son?

#### Son's age

$$\text{Total} + \text{Number of years ago(Times - 1)}$$

$$= \text{Times} + 1$$

$$= \frac{T+x(y-1)}{y+1}$$

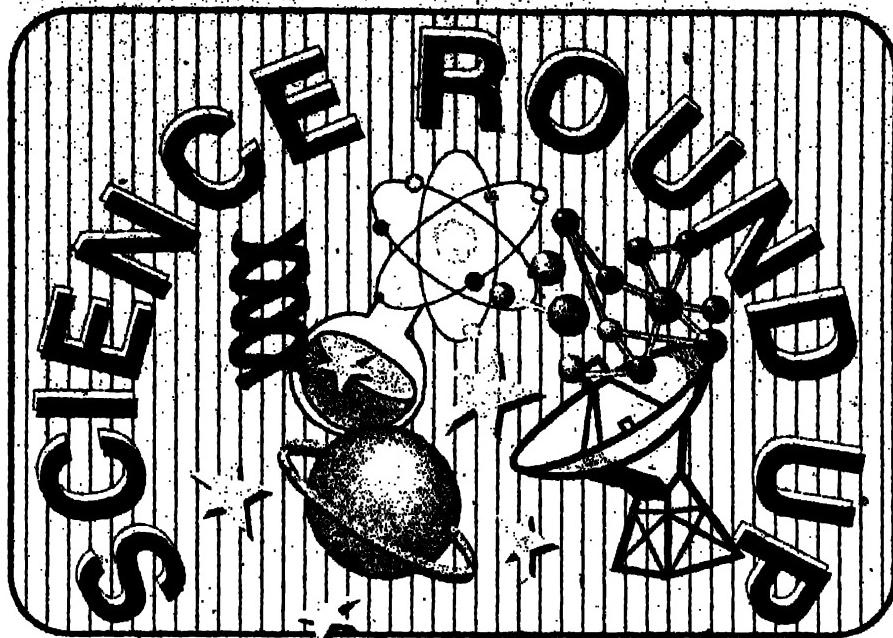
Ex.4. The sum of the ages of a son and father is 50 years. Also 5 years ago, the father's age was 7 times the age of the son. What are the present ages of the father and the son?

#### Sol. TRICK :

$$\text{Son's age} = \frac{50+5(7-1)}{7+1}$$

$$= \frac{50+5 \times 6}{8} = \frac{80}{8}$$

$$= 10 \text{ years}$$



## No Evidence of Water on the Moon

An attempt to find water on the Moon by crashing a used spacecraft into the lunar surface has come up dry, researchers say. In a report prepared for presentation at a meeting of astronomers in Padua, Italy, a researchers from the University of Texas said no water was detected from the crash of the lunar prospector spacecraft into a moon crater. The Lunar prospector, which has completed its mission of mapping the moon from lunar orbit, was sent smashing into a crater near the moon's south pole on July 31. Instruments on the spacecraft earlier had detected the presence of hydrogen, suggesting the crater could contain ice. Scientists hoped the violence of the crash would splash up a plume of water bearing dust. More than a dozen Earth and space-based telescope observed the crash site. Researchers hoped that ultra-violet radiation, shining through the dust plume from the crash, would bear the spectral signature of water. No evidence of water was found, said David Goldstein, the University of Texas researchers who headed the experiment.

"As expected, we didn't make a big splash, or we would have seen a water signal quickly," Goldstein said in a statement. Possible reasons for finding no evidence of water, he said in the statement, include, the spacecraft missed the target, hitting only dry soil and rocks; No water exists in the crater, and the hydrogen detected earlier by the Lunar prospector was pure hydrogen and not a component of water. The plume created by the crash may not have risen into telescope view above the lip of the crater, or the more than a dozen professional telescopes used in the experiment were not aimed properly. Finding water on the moon, experts say could make it easier to establish a colony there or to build a fuelling station for spacecraft.

## New Method to Cure Cardiac Disorders

A novel technique to cure cardiac rhyme disorders has brought for the suffering patients. The new technique is termed, catheter ablation of supraventricular tachycardia using radio frequency energy.

The pathogenesis involves a kind of abnormality in the electrical circuit of the heart and during the episode of palpitation of the heart

rate suddenly becomes fast. It may subside spontaneously but some may need injectable drugs or conversion with electrical shock i.e. DC cardioversion to convert tachycardia to normal rhythm.

Most of the time these attacks are unpredictable and recurrent and occasionally may lead to heart failure. This creates a constant fear in the mind of the patient. The various available drugs to prevent these episodes are effective only partially and in addition have to be used throughout life. These also have side effects.

Thus the need for a curative alternative has been felt for long. This new technique has now brought fresh hope. It involves delivery of radio-frequency with the help of special catheter which ablates the culprit focus and cures the patient of this recurrent problem.

First, it is important to define the process, mechanism of supraventricular and ventricular tachycardia and the location of the focus. The routine 12 lead ECG during tachycardia is not enough to localise the focus.

A detail electrophysiological study is then done to define the mechanism and locate the culprit focus to be ablated. This involves introduction to three to four multielectrode catheter in the heart, but is quite safe if performed by experts. A special RF catheter is placed at the specific site and radiofrequency energy [10 to 50 watts] is delivered. This is applied for 30 to 90 seconds.

This results in tissue coagulation necrosis of the site which becomes electrically inert and thus prevents the occurrence of tachycardia without affecting the heart function. The long term safety and effectiveness of the procedure has now been well established. This therapy, thus has proved to be a revolutionary advance in the management of various tachyarrhythmias.

## SCIENCE ROUND-UP

### Fighter Pilot Simulators

Fast-jet pilots of the future are to undertake an advanced technology training course that reaches new heights of realism—on the ground as well as in the air.

Pilots aiming to become the next generation of Royal Air Force fighter crews will benefit from this new style course. This relies not only on British Aerospace Hawk jet trainers but also on highly advanced ground facilities including the purpose-built Hawk Cockpit procedures trainer.

Two further simulators housed in domes will be able to create such realistic airborne environments that trainee pilots will 'fly' them intensively for a significant proportion of their over course. This, in turn, will reduce their number of flying hours in actual air craft and increase their scope for learning the vital front-line skills on operational fighter pilot needs.

These two new Hawk mission simulators will use an advanced visual system which is the first to give the pilot a real picture of the world derived from satellite photography. High definition satellite images, further enhanced with additional detail and tailored by computerised three-dimensional modelling techniques, will give students a uniquely realistic area in which to practise front-line procedures and sorties such as low-level bombing and to strafing runs on specific targets.

This 'virtual' world seen from the simulators' cockpits will replicate much of the real environment above the mountain hills and valleys of Wales, a high-quality training area used by Royal Air Force Hawk students flying (from RAF Valley in North Wales) when new ground facilities are based.

### GPS for Public Transport

Train accidents like the recent one in Assam could be averted with new technologies based on the global positioning system (GPS) being

developed indigenously and tested world wide.

The Bangalore-based Accord Software & Systems engaged in real time embedded systems, digital signal processing, communication and operating system has launched a unique fleet management system [AFMS] based on the GPS receiver NAV2100F-WAV2100 F is a multi-channel GPS receiver [GPSR] chipset solution for medium dynamic application.

It is designed around the programmable, GPSR processor ADSSTNUA2100 with on chip SRAM and integrated 110 peripherals support.

Explaining the details, the Managing Director of the company, Mr. J.M. Sudaresan, said GPS is a satellite based radio navigation system, which continuously receives signals from GPS Satellites, 24 in number and computes the user's present position in terms of latitude, longitude and altitude.

It also gives a precise heading, velocity of the vehicle in which GPS receiver is mounted. AFMS consists of three main components namely mobile terminal, host computer with AFMS software connected to an interface unit and a radio or cellular phone with antenna and accessories.

The mobile terminal computer vehicle's position, velocity, heading time and date information communicates to the control station through radio or cellular. In the case of trains the GPSRs are positioned one at the engine and the other at the SLR Coach. These GPSRs are connected by a data link to the station.

They keep transmitting signals to the communication link. In case if anything goes wrong, it will be indicated in the terminal. It gives early warning to avoid head on collision and the alert station master can give positive signal to the trains. For real time tracking of vehicles, the software receives the signal from the vehicle and plots the location of the vehicle

on a digital map, stored in the host computer. The transmission of vehicle position can be controlled by the AFMS software. AFMS can be useful in real time tracking of vehicles, automatic vehicle billing system, theft control, emergency applications with a Dial 100 system, railway and marine rescue applications.

### Star Wars Water Technology

In a research project, the University of Hertfordshire's Water Engineering Research group has developed a laser system making the 100-year-old means of measuring 'Five-day' Biochemical Oxygen Demand [BOD] Obsolete.

"Potential applications for this new technology are enormous and could push back the frontiers of detection, monitoring and control technologies well into the next millennium," said Dr. Darren Reynolds the system developer in the group "when perfected, this method could contribute to science, by enabling potential water pollution events to be detected before they become problems, benefiting both consumers and the environment."

It is set to change the standard of BOD test, that measures the oxygen demand of rivers and lakes receiving significant quantities of biodegradable organic material, that usually takes five days, making it unsuitable for instant on-line monitoring.

A series of 'wet chemical' techniques to measure pollution levels have been developed. These include monitoring Chemical Oxygen Demand (COD) and total organic carbon (TOC). "Although these tests are much faster, they are unable to differentiate between biodegradable and non-biodegradable matter, making true on-line monitoring and control impossible," said Dr. Reynolds. On-line monitoring of both water and wastewater quality in real time is an attractive concept which could be developed to implement on international network of remote 'Star-Wars' type sensors designed to rely

water quality back to a central collection point which, perhaps could be linked directly to the Internet System—providing instant access for both developed and developing countries.

### Ultrasound's New Wave

Ultrasound—Sound waves too high-pitched for the human ear to detect—has many uses, from checking the integrity of aeroplane parts to examining unborn babies. But the devices currently used to generate ultrasound known as 'piezo-electric plates', have limitations, and attempts to design better emitters consisting of hundreds of tiny loudspeakers have run into problems.

Now researchers at Tokyo University have created a radical new design for efficient and highly accurate ultrasound generators. Piezo-electric devices work by applying an electric current to a ceramic material that responds by changing shape. This shape shifting disturbs the air around the ceramic, creating a sound wave. The irritating beeping noise of digital watches is produced in this way.

While piezo-electric devices are cheap and simple, they have some serious drawbacks, they do not perform equally well at different frequencies, and they are just not loud enough. The prototype described by Hiroyuki Shinoda and colleagues in nature, on the other hand, does not use of vibrating plate, in fact, it has no moving parts at all and is more like a sandwich than a loudspeaker. The bottom layer is made of silicon [the material used to make microchips], next is another thin layer of silicon but this time peppered with microscopic holes, and topping it is a very thin coat of conducting aluminium. The whole sandwich is just one millimetre thick.

When electricity passes through the sandwich, the porous of silicon in the middle heats up, just as an electric fire gets red hot when the

current flows through the bars. The heat from the middle layer passes quickly through the aluminium coating and warms up the air immediately outside, causing it to expand. Like ripples running away from a stone thrown into a pond, the disturbance from the expansion passes through the air as a sound wave.

When the current is turned off, the air quickly drops back down to room temperature and contracts back to its usual volume. If this cycle can be repeated rapidly enough, the vibrations from the expanding and contracting air will produce sound. Amazingly, Shinoda's team have shown that their design works up to at least 100 KHz—that's 100,000 expansions and contractions per second, or five times the frequency of the highest note you can hear.

### Flavonol Findings

A study by British food scientists revealed a wide variation in levels of flavonols, the powerful health-giving chemicals which can protect against heart diseases and cancer and that are found in wines from different parts of the world, as well as in fruits and vegetables, and different kinds of the same product.

The team at the University of Glasgow in Scotland found, for instance, that Lollo Rosso lettuce had 100 times the flavonol level of ordinary round lettuce, while small cherry tomatoes were packed with far more of the chemical than larger types. Red onions were full of flavonols, whereas white onions had practically none.

Their findings could lead to flavonol-rich fruits, vegetables and wines being selected by V.M. Supermarkets and branded as good for the health. They may also result in growing and breeding strategies aimed at improving the healthiness of natural foods without resorting to genetic engineering.

(Contd... from page 110)

### SHORT ANSWERS

- |     |   |   |   |   |
|-----|---|---|---|---|
| 1.  | ① | ② | ③ | ④ |
| 2.  | ① | ② | ③ | ④ |
| 3.  | ① | ② | ③ | ④ |
| 4.  | ① | ② | ③ | ④ |
| 5.  | ① | ② | ③ | ④ |
| 6.  | ① | ② | ③ | ④ |
| 7.  | ① | ② | ③ | ④ |
| 8.  | ① | ② | ③ | ④ |
| 9.  | ① | ② | ③ | ④ |
| 10. | ① | ② | ③ | ④ |
| 11. | ① | ② | ③ | ④ |
| 12. | ① | ② | ③ | ④ |
| 13. | ① | ② | ③ | ④ |
| 14. | ① | ② | ③ | ④ |
| 15. | ① | ② | ③ | ④ |
| 16. | ① | ② | ③ | ④ |
| 17. | ① | ② | ③ | ④ |
| 18. | ① | ② | ③ | ④ |
| 19. | ① | ② | ③ | ④ |
| 20. | ① | ② | ③ | ④ |
| 21. | ① | ② | ③ | ④ |
| 22. | ① | ② | ③ | ④ |
| 23. | ① | ② | ③ | ④ |
| 24. | ① | ② | ③ | ④ |
| 25. | ① | ② | ③ | ④ |
| 26. | ① | ② | ③ | ④ |
| 27. | ① | ② | ③ | ④ |
| 28. | ① | ② | ③ | ④ |
| 29. | ① | ② | ③ | ④ |
| 30. | ① | ② | ③ | ④ |
| 31. | ① | ② | ③ | ④ |
| 32. | ① | ② | ③ | ④ |
| 33. | ① | ② | ③ | ④ |
| 34. | ① | ② | ③ | ④ |
| 35. | ① | ② | ③ | ④ |
| 36. | ① | ② | ③ | ④ |
| 37. | ① | ② | ③ | ④ |
| 38. | ① | ② | ③ | ④ |
| 39. | ① | ② | ③ | ④ |
| 40. | ① | ② | ③ | ④ |

NOTE : It is probable that in actual question paper you may find alternative choices marked as (A), (B), (C) and (D) instead of (1), (2), (3) and (4). But that makes no difference. However, you must follow the instructions given in the question booklet in this regard to avoid penalty in any form.

# BANK & RBI CLERICAL EXAM.

SET-I

## TEST-I REASONING

**Directions (1-5) :** Read the following letter-number-symbol sequence carefully and answer the questions given below it :

J B 1 A K R D • 4 U F Z @ 7 M C P \$ 5 T H V £ # 2 \* 8 G

1. Which of the following elements will be ninth to the left of tenth element from your right?

- (1) 2                   (2) U
- (3) 4                   (4) F
- (5) None of these

2. Which of the following will be exactly midway between the eighth element from your left and thirteenth element from your right?

- (1) T                   (2) F
- (3) 7                   (4) Z
- (5) None of these

3. Four of the following five are alike with regard to their position in the above sequence and hence form a group. Which one of the following does not belong to that group?

- (1) K4Z               (2) M\$T
- (3) BKD               (4) @C\$
- (5) TE2

4. If the first ten elements from left are written in the reverse order, then next ten elements are written in the reverse order followed by the remaining elements are written in the reverse order, which of the following will be fifth to the right of 'M'?

- (1) T                   (2) U
- (3) 5                   (4) G
- (5) None of these

5. What should come in the place of question-mark (?) in the following series?

- FRA, @4R, CZ4, ?
- (1) 5MZ               (2) TC@

- (3) TM@               (4) HC7
- (5) None of these

**Directions (6-10) :** Read the following information carefully and answer the questions given below it :

(I) There are seven members in the Elite Club - A, B, C, D, E, F and G.

(II) Three of them are ladies and none of the ladies is either Engineer or Surveyor.

(III) All the seven members belong to different States viz., Assam, Bihar, Gujarat, Karnataka, Rajasthan, Punjab and Uttar Pradesh (But not necessarily in the same order).

(IV) All the seven members are different professional viz., Engineer, Surveyor, Doctor, Manager, Teacher, Lecturer and Editor.

(V) D, the Surveyor, belongs to the state of Karnataka.

(VI) The lady teacher belongs to the state of Punjab.

(VII) B is the husband of G and his native state is Bihar.

(VIII) C, the wife of E is a doctor and belongs to the state of Assam.

(IX) The wife of B is the teacher and B is an Editor.

(X) F is an Engineer and belongs to the state of Uttar Pradesh.

(XI) A, the lecturer is wife of Engineer and belongs to the state of Gujarat.

6. What is the profession of E?

- (1) Engineer
- (2) Editor
- (3) Manager
- (4) Cannot be determined
- (5) None of these

7. Which of the following is definitely a group of female members?

- (1) ACG
- (2) ABC
- (3) AFG

- (4) Cannot be determined
- (5) None of these

8. Which of the following pairs is one of the married couples?

- (1) AD
- (2) CE
- (3) BE
- (4) Cannot be determined
- (5) None of these

9. Who among the following is an unmarried member?

- (1) C                   (2) F
- (3) D                   (4) G
- (5) None of these

10. Who among the following belongs to the state of Punjab?

- (1) B                   (2) C
- (3) D                   (4) G
- (5) None of these

**Directions (11-12) :** Read the following information carefully and answer the questions given below it :

A, B, C, D, E and F are standing in a row facing north. B is taller than A but not as tall as E. F is taller than all of them except E. D is shorter than B but taller than C.

11. Who among them is the shortest?

- (1) A                   (2) C
- (3) C or A             (4) D
- (5) None of these

12. If all of them are arranged in ascending order of heights then who will be between F and D?

- (1) A
- (2) C
- (3) B
- (4) Cannot be determined
- (5) None of these

13. In a certain code language HANDLE is written as JDPGNH. How will PATROL be written in that code language?

- (1) PDVQJO   (2) PVDUQO

(1) ADVUPR (4) RDVUQO

(5) None of these

14. If it is possible to make a meaningful word with the first, the third, the fifth and the eighth letters of the word INTEGRATION, using each letter only once, mark last letter of that word as your answer. If no such word can be formed mark 'X' as your answer and if more than one such word can be formed mark 'M' as your answer.

(1) X (2) M

(3) I (4) G

(5) T

15. How many such pairs of letters are there in the word CONVULSE which have as many letters between them in the word as in the English alphabet?

(1) Two (2) Three

(3) Four (4) One

(5) None of these

16. In a class Reshma's rank is sixth from the top and thirty-fifth position from the bottom. If in the same class Rahul's rank from the top is twelfth, what is his rank from the bottom?

(1) 31st (2) 30th

(3) 28th (4) 29th

(5) None of these

17. How many such 7s are there in the following number series which are immediately preceded by 4 and immediately followed by 2?

572471472427172647547272476742

(1) One (2) Two

(3) Three (4) Nil

(5) None of these

18. If both the statements "Some boats are ships" and "All ships are tapes" are true, then which of the following can be inferred from these two statements?

(1) All boats are ships

(2) All boats are tapes

(3) All tapes are ships

(4) Some boats are tapes

(5) None of these

19. In a certain code language " $\odot + \ddagger$ " means "Play and Swim", " $+ \% \odot$ " means "Swim and Drink" and " $+ \$ \ddagger$ " means "Write and See". What is the code of "Play"?

(1)  $\odot$  (2) +

(3) \* (4) %

(5) None of these

20. If all the letters of the word CONTRIVANCE are arranged in alphabetical order which of the following will be the seventh letter from the right?

(1) N (2) E

(3) C (4) I

(5) None of these

21. In a certain code language A is written as £, C as \$, E as \*, I as Δ, L as #, R as ⊕, T as + and Y is written as %. How will the word LITERACY be written using the given code?

(1) # Δ + \* ⊕ £ \$ %

(2) # Δ + \* ⊕ £ % \$

(3) Δ # + \* £ ⊕ \$ %

(4) % # \$ Δ £ + \* ⊕

(5) None of these

22. If the password is "tim rye kem cop sep gel" for the keyword "cop rye gel tim kem sep", what will be the password for the keyword "rad.tiv suh eue ayn dut"?

(1) tiv ayn rad suh eue dut

(2) dut tiv.eue suh ayn rad

(3) ayn rad tiv.eue dut suh

(4) eue tiv ayn rad dut.suh

(5) None of these

23. Jayesh starts walking towards South and after walking 15m, he turns to his left and walks 15m. Again he turns to his left and walks 10m. In which direction is he now with reference to the starting point?

(1) South (2) East

(3) South-East

(4) North-East

(5) None of these

24. If '+' means 'x', '-' means '÷', 'x' means '+' and '÷' means '-' what will be the value of

$$12 + 3 + 22 \times 35 - 7 ?$$

(1) 19 (2) 21

(3) 22 (4) 17

(5) None of these

25. Pointing to a photograph of a man, a gentleman said, "He is the brother-in-law of my father-in-law's only daughter". How the man in the photograph is related to the gentleman?

(1) Brother-in-law

(2) Brother

(3) Uncle

(4) Cannot be determined

(5) None of these

**Directions (26-40) :** There are two sets of figures. One set is called Problem Figures while the other set is called Answer Figures. Problem set figures form some kind of series. You have to select one figure from the Answer set figures which will continue the same series as given in Problem set figures.

**Problem Figures**

x	x	Δ	Δ	s
o	x	o	s	x

**Answer Figures**

o	s	s	s	x
s	o	o	o	s
x	Δ	x	Δ	o

**Problem Figures**

t	.	+	s + t   t o a
t +	o t		o

**Answer Figures**

s	o	Δ	Δ	o
+	+	o	o	e
t o a	t s o	t + s	t s +	t s +

**Problem Figures**

s	o	·	s ↑	↑
Δ	s	o	=	s

**Answer Figures**

o	c	Δ	c	c
↑	o	□	c	c
Δ	s	s ↑	o	s ↑

**Problem Figures**

* + o + o	+ Δ t	Δ t	t o =
o	o	*	s

**Answer Figures**

p = s	p = s	s	s	s
t *	t	p	p	p
* c	t c	p * c	t * c	* c

**Problem Figures**

Δ	=	*	s	c
o	o	Δ	=	*

**Answer Figures**

T S C	G S T	T C S	S T C	T O S
1	2	3	4	5

**Problem Figures**

= C O D O □ C □ T O T P □ P X
S * △ # = C = △ O △ C □ C O T

**Answer Figures**

T ↑ X T X ↑ X T
O □ P O □ P O □ P P O □ P O □
1 2 3 4 5

**Problem Figures**



**Answer Figures**

○ ↑	○ ↑	↓ T	↑ T	○ ↓
1	2	3	4	5

**Problem Figures**



**Answer Figures**

○ x	○ x	○ x	○ x	○ x
1	2	3	4	5

**Problem Figures**

= C 5 O	C = S C	S △ O	= S △ O	△ T #
---------------	---------------	-------------	---------------	-------------

**Answer Figures**

S △ + + T +	S △ T △	+ S T + T	+ T S	T △
1	2	3	4	5

**Problem Figures**



**Answer Figures**

○ ● ○	● ○ ○	○ ○ ○	○ ○ ○	○ ○ ○
1	2	3	4	5

**Problem Figures**

= O △ S C	△ S C	= C △ O	△ O S	△ S C
--------------------	-------------	---------------	-------------	-------------

**Answer Figures**

△ = C O S	△ = C A O S	C = O △ A S	C = A S O	△ C = O S O
1	2	3	4	5

**Problem Figures**



**Answer Figures**

□ □	□ □	□ □	□ □	□ □
1	2	3	4	5

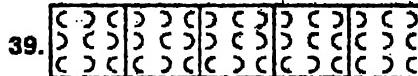
**Problem Figures**

x = x = o o	x = o = □ □	△ s = x = o o
-------------------	-------------------	---------------------

**Answer Figures**

x o □ △ = □ S T T	x o □ △ = □ S S	x o □ △ = □ T T	x o □ △ = □ S T	x o □ △ = □ S S
1	2	3	4	5

**Problem Figures**



**Answer Figures**

○ ○ ○ ○ ○ ○ ○ ○ ○				
1	2	3	4	5

**Problem Figures**

D Δ △ T D = D	□ T T = D	T □ = D C	□ P = P C
---------------------	--------------	-----------------	-----------------

**Answer Figures**

+ C P □ + + C P	= C P ○ + = C P			
1	2	3	4	5

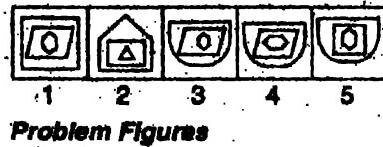
**Directions (41-50) : In each of the questions given below there are two sets of figures. The figures on the top are called Problem Figures (four figures and one question - marked space) and those on the bottom are Answer Figures indicated by numbers (1), (2), (3), (4) and (5). A series is established if one of the five Answer Figures is placed at the "Question-marked space". Figures form a series if they change from left to right according to same rule. The number of Answer Figure which should be**

placed in the question-marked space is the Answer. All the figures, i.e., four Problem Figures and one Answer Figure placed in the question marked space should be considered as forming series.

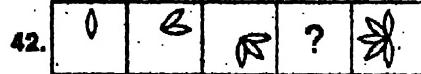
**Problem Figures**



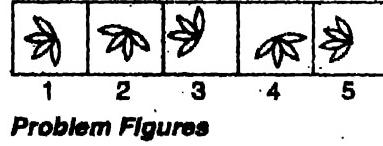
**Answer Figures**



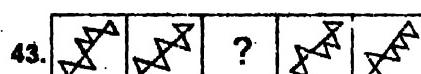
**Problem Figures**



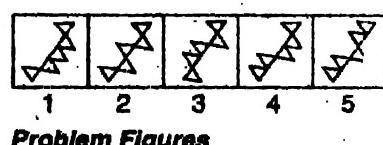
**Answer Figures**



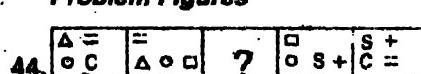
**Problem Figures**



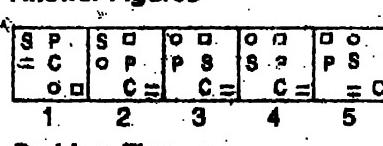
**Answer Figures**



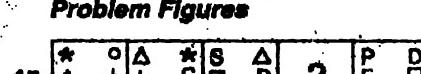
**Problem Figures**



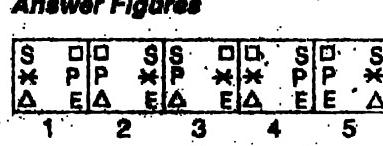
**Answer Figures**



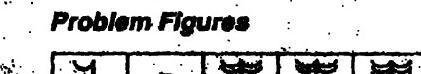
**Problem Figures**



**Answer Figures**



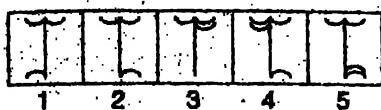
**Problem Figures**



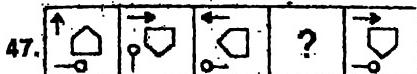
**Answer Figures**



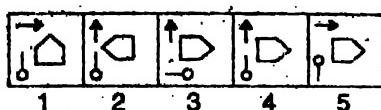
**Answer Figures**



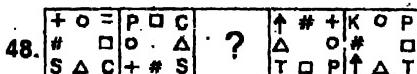
**Problem Figures**



**Answer Figures**



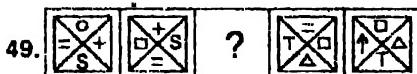
**Problem Figures**



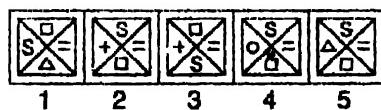
**Answer Figures**



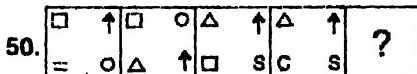
**Problem Figures**



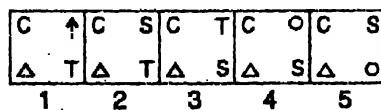
**Answer Figures**



**Problem Figures**



**Answer Figures**



on May 11, 2000, as some have predicted or around the time of the country's 52nd Independence Day on August 15. It could, perhaps, have already happened considering the sorry state of our demographic records. However, the fact remains that this is no cause for celebration. Rather, the birth of the billionth Indian is yet another dismal reminder of the fact that policies evolved over the last fifty years have failed and failed badly. Planners of late have been crowing over a fall in fertility rate from 4.5 in 1981 to 3.5 in 1995 and indeed some states like Tamil Nadu and Mizoram have registered a decline, but it is clearly a case of too little too late because the population continues to grow at the rate of 1.6 per cent every year compared to 0.9 per cent in China. And it is not for want of funds. Fiscal allocations have gone up steadily—it was to the tune of Rs. 3,000 crore in 1998-99—yet thirty Indians are born every minute, 1,815 every hour and 15,678,000 every year. In recent years a shift in policy from target-oriented programmes to an integrated approach concentrating on child mortality, maternal safety and the empowerment and education of women has also been attempted but it has failed to make a dent because policies remain largely on paper thanks to political and bureaucratic apathy. Quite clearly, a holistic approach is called for—one that will involve NGOs and the public and private sectors because given the necessary support and services, the people will opt for small families as has been seen in some states. But what is also necessary is to evolve programmes that will involve men so that they can, as husbands, fathers, policy makers and doctors, be advocates of good reproductive health care rather than bystanders, barriers and adversaries. For too long now has the focus been on women.

51. What perhaps has happened considering the sorry state of our demographic record?

(1) India has crossed one billionth population.

(2) India has exactly got the demographic record.

(3) India has lost the demographic record.

(4) India has reached one billionth mark on August 15, '99

(5) None of these

52. What is the dismal remainder over the last fifty years?

(1) The policies that evolved were of no result.

(2) The birth of the one billionth Indian.

(3) Fall in the rate of fertility to 3.5%

(4) The policies of the government failed greatly in checking population.

(5) None of these

53. What is the growth rate of Indian population

(1) 0.9% per minute

(2) 30 per minute

(3) 4.5% per minute

(4) 1.6% per minute

(5) 3.5% per minute

54. Which states have registered a fall in fertility in recent years?

(1) Manipur & Mizoram

(2) Kerala & Tamil Nadu

(3) Mizoram & Tamil Nadu

(4) Manipur & Kerala

(5) None of these

55. Why has the integrated approach on child mortality and maternal safety failed?

(1) Policies remain largely on paper only.

(2) Policies were not undertaken in 5 year plans.

(3) Politicians and bureaucrats failed to peep into the concerned policies.

(4) Policies were so target oriented that they need much time to attain success.

(5) None of these.

56. Why is a 'holistic approach' called for?

(1) It will involve NGOs and other public and private sectors.

(2) The NGOs would provide necessary services to people with small families.

(3) People will go for limited number of children.

(4) People will love having big families.

(5) None of these

**TEST-II**

**ENGLISH**

**Directions (51-59) :** Read the following passage carefully and answer the questions given below it. Certain words/group of words in the passage are printed in bold to help you locate them while answering some of the questions.

DEMOGRAPHERS MAY differ on when exactly the one billionth Indian will arrive on planet Earth. It could be

**57.** When will the people opt for small families.

(1) If the necessary support and services are provided by NGOs and other public and private sectors.

(2) If the necessary support and services are provided only by the government.

(3) If the necessary support and services are provided by the state health departments.

(4) If the necessary support and services are provided by the public and private sectors.

(5) All of these.

**58.** What is the policy attempted recently on education in the integrated approach?

(1) Education on maternal safety.

(2) Education on family planning

(3) Education of women.

(4) Education on concentrating child mortality.

(5) None of these.

**59.** What could be the suitable title of the passage?

(1) Population infrastructure and remedy.

(2) Plans and programmes to check population.

(3) Indian rise in population.

(4) India at billionth.

(5) None of these

**Directions (60-62) :** Choose the word which is nearly the SAME in meaning as the word given in bold as used in the passage?

#### **60. PREDICTED**

(1) Foreshow (2) Assume

(3) Prophecy. (4) Foretell

(5) Declared

#### **61. DISMAL**

(1) Sorrowful (2) Cheerless

(3) Depressing(4) Gloomy

(5) Poor

#### **62. DEMOGRAPHIC**

(1) Study of population

(2) Official numbering of population.

(3) Vital and social statistics of nation

(4) Statistics of births and deaths

(5) Populistic

**Directions (63-65) :** Choose the word which is most OPPOSITE in meaning of the word given in bold as used in the passage.

#### **63. EVOLVED**

(1) Decayed (2) Degenerated

(3) Withered (4) Deteriorate

(5) Generated

#### **64. DECLINE**

(1) Increase (2) Inflate

(3) Raise (4) Heighten

(5) Reduce

#### **65. BARRIER**

(1) Emancipate(2) Release

(3) Reluctant (4) Enclosure

(5) Stimulate

**Directions (66-75) :** Read each sentence to find out whether there is any grammatical or idiomatic error in it. The error, if any, will be in one part of the sentence. The number of that part is the answer. If there is no error, the answer is (E). (Ignore the errors of punctuation, if any).

**66.** His study of physics(1)/and other natural sciences (2)/ have developed (3)/ his personality(4)/ No error (5).

**67.** Jagan pointed out(1)/that he is not ready (2)/ to help me (3)/ so I was helpless(4)/ No error(5).

**68.** We do not know that(1)/ this road leads to (2)/ the city community (3)/ hall or not (4)/ No error(5).

**69.** The luggage of Mohan(1)/was searched through (2)/by the police for(3)/ his suspected deportment(4)/ No error (5).

**70.** Neither of the two parties(1)/ were in such a condition(2)/ to form(3)/ the government (4)/ No error (5).

**71.** Rajiv has been (1)/ reading novels and (2)/ dramas for the past (3)/ few years (4)/ No error (5).

**72.** You can watch(1)/ the scene clear(2)/if you take(3)/ spectacles on your eyes(4)/ No error (5).

**73.** Going to the market(1)/ Mili met with(2)/ a fatal accident (3)/ in her way (4)/ No error.(5)

**74.** They were asked(1)/ that why they(2)/ had planned a crime(3)/ for innocent persons(4)/ No error(5)

**75.** One of the books(1)/ that have been bought(2)/ from the market (3)/ has been stolen(4)/No error (5).

**Directions (76-85) :** Pick out the most effective word from the given words to fill in the blanks to make the sentence meaningfully complete.

**76.** The behaviour of Mohan can

be termed as .... hence he would be more careful.

(1) wrong (2) inhuman

(3) indecent (4) indiscipline

(5) irrational

**77.** The new government is to be .... in Goa after a long controversy.

(1) formed (2) founded

(3) established

(4) started

(5) constructed

**78.** The .... post's should be recruited immediately in our state.

(1) empty (2) blank

(3) hollow (4) gap

(5) vacant

**79.** We have to .... Australia cup on television.

(1) see (2) percent

(3) look (4) glimpse

(5) watch

**80.** Sohan is .... he cannot finish his work in a week.

(1) idle (2) ideal

(3) lazy (4) workless

(5) dullard

**81.** I study all papers .... mathematics with a great zeal.

(1) especially (2) specially

(3) particularly (4) only

(5) regularly

**82.** One of the new brides .... suicide yesterday.

(1) committed (2) planned

(3) made (4) created

(5) started

**83.** Ali was finally disosed .... his job

(1) to (2) away

(3) for (4) of

(5) about

**84.** Mohan is addicted .... taking narcotics.

(1) from (2) of

(3) to (4) with

(5) at

**85.** The people .... the Chief Minister out side the assembly.

(1) captured (2) seiged

(3) sieged (4) seized

(5) undertook

**Directions (86-90) :** In each of the following questions five words are given which are denoted by A, B, C, D and E. By using all the five words, each only once you have to frame a meaningful grammatically correct

**sentence. The correct order of the words is your answer. Choose from the alternatives the one having the correct order of words.**

86.(A) a letter (B) wants  
(C) to (D) she

(E) write  
(1) EACBD (2) DBECA  
(3) DBCEA (4) AECBD  
(5) BEACD

87.(A) prevented

(B) father  
(C) his  
(D) him from  
(E) hunting

(1) CBADE (2) CBEDA  
(3) EBCDA (4) EBADC  
(5) ABCDE

88.(A) tell (B) Ranjan  
(C) dare (D) a lie  
(E) not

(1) DBACE (2) DBCEA  
(3) EACBD (4) BCEAD  
(5) CDBAE

89.(A) was (B) morning  
(C) nice (D) yesterday

(E) it  
(1) ABCDE (2) BCDEA  
(3) ACBED (4) CBADE  
(5) EACBD

90.(A) cannot (B) me  
(C) she (D) at present  
(E) help

(1) BCAED (2) CAEBD  
(3) CABED (4) BCDAE  
(5) DECAB

**Directions (91-100) :** In the following passage there are blanks each of which has been numbered and these numbers are printed below the passage and against each five words are suggested, one of which fits the blank appropriately. Find out the appropriate words.

It all started as a 91 day. Many walked in and scrubbed 92 and started towards the testing laboratory. This was the place where 93 from each lack of medicines going out of the factory was 94. On her way she found a large flask jar keep in a corner of the corridor. She could not understand why it was kept there. She thought that she might pick it up and give it to the stores. She 95 down 96 pick it up. As it was being lifted up the jar broke 97 pieces. A large piece fell on Mary's leg and the sharp 98 left a jagged cut. Blood started 99 she decided to get out of the factory and for to the dispensary room just 100 the

main door.

91.(1) casual (2) regular  
(3) daily (4) usual  
(5) even

92.(1) itself (2) herself  
(3) himself (4) themselves  
(5) ourselves

93.(1) ampies (2) symbols  
(3) samples (4) tickets  
(5) cards

94.(1) checked(2) tested  
(3) evaluated (4) probed  
(5) investigated

95.(1) bent (2) went  
(3) moved (4) backed  
(5) turned

96.(1) for (2) by  
(3) at (4) from  
(5) to

97.(1) upon (2) towards  
(3) under (4) into  
(5) up

98.(1) coast (2) edge  
(3) bank (4) shore  
(5) lake

99.(1) following  
(2) blowing  
(3) bleeding (4) licking  
(5) cracking

100.(1) inside (2) under  
(3) outside (4) over  
(5) outfield

(5) None of these

104.  $\frac{18 \times 3 - 2 \times 4 + 3.24 \times 2.5}{11 \times 2 + 3 \times 2 - 12 \times 7} = ?$

(1) -0.966 (2) 0.966  
(3) -1.966 (4) 1.966

(5) None of these

105.  $\frac{17 \frac{3}{2} + 5 \frac{19}{21} + 7 \frac{21}{19}}{21} = ?$

(1)  $32 \frac{407}{978}$  (2)  $32 \frac{407}{798}$   
(3)  $32 \frac{406}{789}$  (4) 1.966

(5) None of these

106.  $819 + 1013 + 1903 = ?\% \text{ of } 23$   
(1) 16239.13 (2) 16249.23  
(3) 14269.33 (4) 16329.13

(5) None of these

107.  $? \% \text{ of } 23 + 880 = 580 + 15\%$   
of 620

(1) 90 (2) 900  
(3) 9 (4) 900

(5) None of these

108.  $587 + 887 + 342 - 1125 + 301 = ?$   
(1) 992 (2) 1992  
(3) 99.2 (4) 99.2

(5) None of these

109.  $\frac{3^2 + 5^2 - 4^2}{81 - 47} = ?$

(1)  $1 \frac{9}{17}$  (2)  $\frac{18}{34}$

(3)  $1 \frac{9}{17}$  (4)  $\frac{12}{17}$

(5) None of these

110.  $8\% \text{ of } 881 + 7\% \text{ of } 200 = ?\%$   
of 40

(1) 211.2 (2) 2011.2  
(3) 2012.3 (4) 2110.2

(5) None of these

111.  $7892 + 6888 + 3333 - 10121 = ?$   
(1) 9092 (2) 9992  
(3) 91993 (4) 99.92

(5) None of these

112.  $20.3\% \text{ of } 400 + 8\% \text{ of } 800 + 3\% \text{ of } 200 = ?\% \text{ of } 41$   
(1) 358.807 (2) 378.708  
(3) 368.780 (4) 368.00

(5) None of these

113.  $13 \frac{17}{19} + 12 \frac{13}{17} + 25 \frac{4}{7} = ?$

(1)  $5 \frac{52}{61}$  (2)  $52 \frac{52}{61}$

**TARGET SET FOR BANK & RAILWAY EXAM**

- (3)  $\frac{502}{2261}$  (4)  $\frac{522}{2261}$
- (5) None of these
114.  $\frac{2}{4} \times \frac{8}{9} \times \frac{4}{20} = ?$
- (1) 1942.222 (2) 1924.222  
 (3) 1904.222 (4) 1902.222
- (5) None of these
- $201 + 211 - 802 \times 2 = ?$
115.  $\frac{802}{802 + 401 - 3 \times 2 + 9} = ?$
- (1) 392.914 (2) 330.914  
 (3) 329.914 (4) 329.5
- (5) None of these
116.  $33333 + 3333 + 333 + 33 + 3 = ?$
- (1) 37035 (2) 36035  
 (3) 37025 (4) 36005
- (5) None of these
117.  $2423.72 - 201.84 + 802.92 + 2212.84 = ?$
- (1) 5236.64 (2) 5137.64  
 (3) 5037.64 (4) 6237.64
- (5) None of these
118.  $980 \div 4 \times 4 - 2 \times 4 + 2 = ?$
- (1) 976 (2) 986  
 (3) 966 (4) 996
- (5) None of these
119.  $2 \frac{1}{2} + \frac{5}{2} + 4002 - 300 = ?$
- (1) 3603 (2) 3703  
 (3) 3803 (4) 3503
- (5) None of these
120.  $890 - 320 + 120 \div 40 + 20 = ?$
- (1) 693 (2) 493  
 (3) 5.93 (4) 593
- (5) None of these
121.  $? \% \text{ of } 80 - 2 \% \text{ of } 2 = 8 \% \text{ of } 9000$
- (1) 101.3 (2) 102.3  
 (3) 10.13 (4) 103.3
- (5) None of these
122.  $11123 - 11111 + 2213 - 2111 = ?$
- (1) 124 (2) 104  
 (3) 114 (4) 134
- (5) None of these
123.  $5555 + 555 + 55 + 5 = ?$
- (1) 6270 (2) 6170  
 (3) 5170 (4) 6470
- (5) None of these
- 124.
- $? \% \text{ of } 200 + 50 \% \text{ of } 500 = 100$   
 $80 \% \text{ of } 800 + 70 \% \text{ of } 700$
- (1) 54375 (2) 56375  
 (3) 57375 (4) 58375
- (5) None of these
125.  $1002 - 21.23 + 500.86 - 201.42 = ?$
- (1) 1480.21 (2) 1480.22  
 (3) 1580.21 (4) 1480.42
- (5) None of these
126. Simple interest on Rs. 400/- in 3 years @ 5% per annum is
- (1) Rs. 30 (2) Rs. 70  
 (3) Rs. 80 (4) Rs. 20  
 (5) Rs. 60
127. A man spends Rs. 7800 in buying tables at Rs. 1200 each and chairs at Rs. 300 each. What will be the ratio of chairs to tables when the maximum number of tables is purchased?
- (1) 2 : 1 (2) 5 : 7  
 (3) 1 : 2 (4) 1 : 4  
 (5) None of these
128. In a mixture of 35 litres, the ratio of milk and water is 4 : 1. If 7 litres of water is added to the mixture, then the ratio of milk and water in the resulting mixture will become
- (1) 1 : 2 (2) 2 : 3  
 (3) 2 : 1 (4) 3 : 2  
 (5) None of these
129. A train is moving at speed of 79.8 km/hour. What is the distance in metre covered by it in 15 minutes?
- (1) 1920 (2) 19950  
 (3) 1970 (4) 1130  
 (5) None of these
130. A husband and wife have six married sons and each of them have four children. The total number of persons in the family is
- (1) 38 (2) 32  
 (3) 25 (4) 42  
 (5) None of these
131. Raman is running at the speed of 5 metres per second. He is running at the rate of
- (1) 12 km/hr (2) 18 km/hr  
 (3) 17 km/hr (4) 9 km/hr  
 (5) None of these
132. A sum of money at simple interest amounts to Rs. 2800 in 2 years and to Rs. 3,250 in 5 years at the rate of
- (1) 7% (2) 5%  
 (3) 8% (4) 6%  
 (5) None of these
133. A pencil costs 5 paise each. They are sold at 20% profit. Find out the selling price of one dozen pencils.
- (1) 72 paise (2) 60 paise
- (3) Rs. 1.00 (4) 75 paise
- (5) None of these
134. Ratio of Mukesh's age to Rakesh's age is equal to 4 : 3. Mukesh will be 26 years old after 8 years. How old is Rakesh now?
- (1)  $19\frac{1}{2}$  years (2) 21 years  
 (3) 15 years (4) 12 years  
 (5) None of these
135. A plot of land of dimension 40 m  $\times$  35 m is to be paved by bricks of dimensions 20 cm  $\times$  5 cm. The number of bricks needed is
- (1) 80000 (2) 175000  
 (3) 2000 (4) 140000  
 (5) None of these
136. x, y and z enter into a partnership with investments in the ratio 5 : 7 : 8. If at the end of the year x's share of profit is Rs. 42,360, how much is the total profit?
- (1) Rs. 1,69,440 (2) Rs. 67,776  
 (3) Rs. 1,21,029 (4) 39,879  
 (5) None of these
137. How many packets each of 350 grams can be prepared out of 7.70 kgs of sugar?
- (1) 11 (2) 110  
 (3) 22 (4) 220  
 (5) None of these
138. The price of a scooter and a computer are in the ratio of 3 : 2. If a scooter costs Rs. 6000 more than the computer set, what is the price of the computer set?
- (1) Rs. 12,000 (2) Rs. 18,000  
 (3) Rs. 2,000 (4) Rs. 10,000  
 (5) Rs. 25,000
139. The sum of the ages of Nitu and her mother is 63 years. Four years back her mother's age was 4 times that of Nitu's age at that time. What is the present age in years of Nitu's mother?
- (1) 48 (2) 44  
 (3) 52 (4) 58  
 (5) None of these
140. Rakesh started a business and invested Rs. 30,000. Six months later, Mona joined him and invested Rs. 15,000. If they make a profit Rs. 10,000 at the end of the year, how much should the share of Rakesh be?
- (1) Rs. 8,000 (2) Rs. 7,500  
 (3) Rs. 6,000 (4) Rs. 2,000  
 (5) None of these.

**TARGET SET FOR BANK & RBI CLERICAL EXAM.**

141. The average age of 32 students is 10 years. If the teacher's age is also included, the average age increases by one year. What is the teacher's age in years?

- (1) 21                   (2) 43  
 (3) 33                   (4) 53  
 (5) None of these

142. 16 men complete a work in 12 days. They worked for 4 days. To finish the remaining work in 4 days, how many more men joined in?

- (1) 8                   (2) 32  
 (3) 16  
 (4) Can't be determined  
 (5) None of these

143. A man saves Rs. 15 on the purchase of a clock when a discount of 20% is given. How much did he pay for the watch?

- (1) Rs. 90             (2) Rs. 75  
 (3) Rs. 60  
 (4) Can't be determined  
 (5) None of these

144. Raman brought a suitcase for Rs. 1,860 and sold it with 35 per cent

profit. At what price did he sell the suitcase?

- (1) Rs. 2325           (2) Rs. 2418  
 (3) Rs. 2511           (4) Rs. 2232  
 (5) None of these

145. Mukul has secured 20 marks more in History than the marks obtained in English. If the average marks obtained by him in Hindi and English is 70, how many marks did he obtain in English?

- (1) 60                   (2) 0  
 (3) 55  
 (4) Can't be determined  
 (5) None of these

146. A person bought an article and sold it on a loss of 20%. If he had bought it for 20% less and sold it for Rs. 55 more, he would have made a profit of 40%. The CP of the article is

- (1) Rs. 125           (2) Rs. 150  
 (3) Rs. 200           (4) Rs. 175  
 (5) None of these

147. If the area of a triangle with base x is equal to the area of a square with side x, then the altitude of the

triangle is

- (1) x                   (2) 3x  
 (3) 2x                   (4)  $\frac{x}{2}$

(5) None of these

148. Ten years ago B was ten times as old as C. If the ratio of their present age is 4 : 1, what is B's present age?

- (1) 10                   (2) 60  
 (3) 40                   (4) 15  
 (5) 45

149. When 6 is added to a number and the sum is multiplied by 8, the result is the same as when 26 is multiplied by 10 and 12 is added to the product. The number is

- (1) 124                   (2) 136  
 (3) 130                   (4) 141  
 (5) None of these

150. The largest natural number by which the product of three consecutive even numbers is always divisible is

- (1) 116                   (2) 124  
 (3) 148                   (4) 196  
 (5) None of these.

**TEST-IV**

**CLERICAL APTITUDE**

**Directions (151-185) :** In each question below a combination of Name and Address is given in the first column at the left followed by four such combinations one each under the columns (1), (2), (3) and (4). You have to find out the combination which is exactly the same as the combination in the first column. The number of that column which contains that combination is the answer. If all the four combinations are different the answer is (5).

	(1)	(2)	(3)	(4)	(5)
151. Nancy Francis 11/8 F- Block Mills Square London-378	Nancy Francis 11/8 F- Block Mills Square London-378	Nancy Francis 11/8 E- Block Mills Square London-378	Nancy Francis 11/8 F- Block Mills Square London-387	Nancy Francis 11/8 F- Block Mills Square London-378	None
152. Vijeta Estates 16 KG Marg Tel : 3327901 M. : 9811056974	Vijeta Estate 16 KG Marg Tel : 3327901 M. : 9811056974	Vijeta Estates 16 KG Marg Tel : 3327910 M. : 9811056974	Vijeta Estates 16 KG Marg Tel : 3327901 M. : 9811056974	Vijeta Estates 16 KG Marg Tel : 3327901 M. : 9811056974	None
153. Indra Prakash Connaught Place Ph : 3351560 Fax : 3351561	Indra Prakash Connaught Place Ph : 3351560 Fax : 3351561	Indra Prakash Connaught Place Ph : 3351506 Fax : 3351561	Indra Prakash Connaught Place Ph : 3351560 Fax : 3351561	Indra Parkash Connaught Place Ph : 3351560 Fax : 3351561	None
154. Amber Hi-Tek Industries Inc. Raipur (MP) Pin-492001	Amber Hi-Tek Industries Inc. Raipur (UP) Pin-492001	Amber Hi-Tek Industries Inc. Raipur (MP) Pin-492001	Amber Hi-Tek Industries Inc. Raipur (MP) Pin-492010	Amber Hi-Tek Industries Inc. Raipur (MP) Pin-492001	None
155. JSS Academy C-20/1 Sec.-62 NOIDA(UP) Pin-201301	JSS Academy C-20/1 Sec.-26 NOIDA(UP) Pin-201301	JSC Académie C-20/1 Sec.-62 NOIDA(UP) Pin-201301	JSS Academy C-20/1 Sec.-62 NOIDA(UP) Pin-201301	JSS Academy C-20/1 Sec.-62 NOIDA(UP) Pin-201310	None

**TARGET SET FOR BANK & RRB CLERICAL EXAM**

156. Shekhar Chand 312, N. D. House Barakhambha Rd. New Delhi-110001	Shekhar Chand 312, M. D. House Barakhambha Rd. New Delhi-110001	Shekhar Chand 312, N. D. House Barakhambha Rd. New Delhi-110001	Shekhar Chand 312, N. D. House Barakhambha Rd. New Delhi-110001	Shekhar Chand 312, N. D. House Barakhambha Rd. New Delhi-110001	None
157. Capital Ford Naya Pallis-5 Bhubaneshwar Ph : 414014/18	Capital Ford Naya Pallis-5 Bhubaneshwar Ph : 414014/18	Capital Ford Naya Pallis-5 Bhubaneshwar Ph : 414014/18	Capital Ford Naya Palli-5 Bhubaneswar Ph : 414014/18	Capital Ford Naya Pallis-5 Bhubaneshwar Ph : 414014/81	None
158. Devika Chawla 1, Sultana Road Bhopal (MP) Phone : 540700	Devika Chawla 2, Sultana Road Bhopal (MP) Phone : 540700	Devika Chawla 1, Sultana Road Bhopal (MP) Phone : 504700	Devika Chawla 1, Sultana Road Bhopal (MP) Phone : 540700	Devika Chawla 1, Sultana Road Bhopal (ME) Phone : 540700	None
159. Mehtab Complex Janadhar City Near Lity Resort Phone : 262619	Mehtab Complex Janadhar City Near Lity Resort Phone : 262619	Mehtab Complex Janadhar City Near Lity Resort Phone : 262619	Mehtab Complex Janadher City Near Lity Resort Phone : 262619	Mehtab Complex Janadhar City Near Lity Resort Phone : 262619	None
160. J.M. Bothra AJC Bose Road FMC Building Calcutta (WB)	J.M. Bothra AJC Bose Road FMC Building Calcutta (WD)	J.M. Bothra AJC Bose Road FMC Building Calcutta (WB)	J.M. Bothra AJC Bose Road FMC Buildings Calcutta (WB)	J.M. Bothra AJC Bos Road FMC Building Calcutta (WB)	None
161. K.P Shray EM Block Salt Lake city Calcutta-700091	K.P Shray EM Block Salt Lake city Calcutta-700091	K.P Shrey EM Block Salt Lake city Calcutta-700091	K.P Shray EM Block Salt Lakes city Calcutta-700091	K.P Shray EM Block Salt Lake city Calcutta-700091	None
162. Raminder Singh Basni, IInd Phase MIA, Jodhpur Phone : 744066	Ramindar Singh Basni, IInd Phase MIA, Jodhpur Phone : 744066	Raminder Singh Bani, IInd Phase MIA, Jodhpur Phone : 744066	Raminder Singh Basni, IInd Phase MIA, Jodhpur Phone : 744066	Raminder Singh Basni, IInd Phase MIA, Jodhpur Phone : 744063	None
163. Hotel Hill View Ashok Road Suraj Kumar Ph : 91-251459	Hotel Hill View Ashok Road Suraj Kumar Ph : 91-251459	Hotel Hill View Ashok Road Suraj Kumar Ph : 91-251459	Hotel Hill View Ashok Road Suraj Kumar Ph : 91-251495	Hotel Hill View Ashok Road Suraj Kumar Ph : 91-251459	None
164. Apple Midas Gita Mandir Rd. Ahmedabad-22 Tel : 2143042	Apple Midas Gita Mandir Rd. Ahmedabad-22 Tel : 2143042	Apple Midas Gita Mandir Rd. Ahmedabad-21 Tel : 2143042	Apple Midas Gita Mandir Rd. Ahmedabad-22 Tel : 2143042	Apple Midas Gita Mandir Rd. Ahmedabad-22 Tel : 2143042	None
165. Managing Director GRTC, Astodia Gujarat-380022 Fax : 2146650	Managing Director GRTC, Astodia Gujarat-380022 Fax : 2146650	Managing Director GRTC, Astodia Gujarat-380022 Fax : 2246650	Managing Director GRTC, Astodia Gujart-380022 Fax : 2146650	Managing Director GRTC, Astodia Gujarat-380022 Fax : 2146650	None
166. Saras Sankul JLN Marg Jaipur -302017 Ph : 702501-8	Saras Sankal JLN Marg Jaipur -302017 Ph : 702501-8	Saras Sankul JLM Marg Jaipur -302017 Ph : 702501-8	Saras Sankul JLN Marg Jaipur -302017 Ph : 702501-8	Saras Sankul JLN Marg Jaipur -302071 Ph : 702501-8	None
167. Sharat Sharma RSEB, Suratgarh Pin-335804 Tel: 01509-65252	Sharat Sharma RSED, Suratgarh Pin-335804 Tel: 01509-65252	Sharat Sharma RSEB, Suratgarh Pin-335804 Tel: 01509-65252	Sharat Sharma RSEB, Suratgarh Pin-335840 Tel: 01509-65252	Sharat Sharma RSEB, Suratgarp Pin-335804 Tel: 01509-65252	None
168. Kuldeep Kumar Tel : 597032 New Delhi-32	Kuldep Kumar Tel : 597032 New Delhi-32	Kuldeep Kumar Tel : 597033 New Delhi-32	Kuldeep Kumar Tel : 597032 New Delhi-23	Kuldeep Kumar Tel : 597032 New Delhi-23	None
169. K. Sivarasan Vill. - Raiyanwali Thiruvananthapuram Pin- 695014	K. Sivarasaan Vill. - Raiyanwali Thiruvananthapuram Pin- 695014	K. Sivarasan Vill. - Raiyanwali Thiruvananthapuram Pin- 695014	K. Sivarasan Vill. - Raiyanwali Thiruvananthapuram Pin- 695014	K. Sivarasan Vill. - Raiyanwali Thiruvananthapuram Pin- 695014	None
170. Chief Engineer S.E. Coalfields Seepat Road Bilaspur-495006	Chief Engineear S.E. Coalfields Seepat Road Bilaspur-495006	Chief Engineer S.E. Coalfield Seepat Road Bilaspur-495006	Chief Engineer S.E. Coalfields Seepat Road Bilaspur-495006	Chief Engineer S.E. Coalfields Seepat Road Bilaspur-495060	None

**TARGET SET FOR BANK & RBI CLERICAL EXAM.**

171. Shiva Electronics Residency Road Srinagar-190001 Ph : 341679/84	Shiva Electronic Residency Road Srinagar-190001 Ph : 341679/84	Shiva Electronics Residency Road Srinagar-190001 Ph : 341679/84	Shiva Electronics Residency Road Srinagar-190001 Ph : 341679/84	Shiva Electronics Residency Road Srinagar-190001 Ph : 341679/48	None
172. Pooranchandmal Bulandshahar Ph : 26089/93 Fax : 31600-36	Pooranchandmal Bulandshahar Ph : 26089/93 Fax : 31600-36	Pooranchandmal Bulandshahar Ph : 26089/93 Fax : 31600-36	Pooranchandmal Bulandshahar Ph : 26089/93 Fax : 31600-63	Pooranchandmal Bulandshahar Ph : 26089/93 Fax : 31600-36	None
173. Shubham Dutta Sithouli, 49 Gwalior (MP) Tel : 564317	Shubham Dutta Sithouli, 49 Gwalior (MP) Tel : 564317	Shubham Dutta Sithouli, 49 Gwalior (MP) Tel : 564317	Shubham Dutta Sithouli, 49 Gwalior (UP) Tel : 564317	Shubham Dutta Sithouli, 49 Gwalior (MP) Tel : 564317	None
174. Vinay K. Bajaj 49, Panchvati Udaipur-313001 Rajasthan	Vinay K. Bajaj 49, Panchvati Udaipur-313010 Rajasthan	None			
175. Deepak Radios Heera Market Near Nidan Kendra Varanasi-221001	Deepak Radios Heera Market Near Nidan Kendra Varanasi-221001	Deepak Radios Heera Market Near Nidan Kendra Varanasi-221001	Deepak Radio Heera Market Near Nidan Kendra Varanasi-221001	Deepak Radios Heera Market Near Nidan Kendra Varanasi-221001	None
176. Krishna Lal 26 Sheo Charan Lal Road, Hissar Tel : 731345/8	Krishna Lal 26 Sheo Charan Lal Road, Hissar Tel : 371345/8	Krishna Lal 26 Sheo Charan Lal Road, Hissar Tel : 371345/8	Krishna Lal 26 Sheo Charan Lal Road, Hissar Tel : 371345/6	Krishna Lal 26 Sheo Charan Lal Road, Hissar Tel : 371345/8	None
177. Soni Vasuki SCF-43, Sec.18D Chandigarh- 160018 Tel : 212618	None				
178. Asha Sharan 55 Dehradun Rd. Rishikesh-249201 Fax -021-987007	Asha Sharma 55 Dehradun Rd. Rishikesh-249201 Fax -021-987007	Asha Sharan 55 Dehradun Rd. Rishikesh-249201 Fax -021-987007	Asha Sharan 55 Dhradun Rd. Rishikesh-249201 Fax -021-987007	Asha Sharan 55 Dehradun Rd. Rishikesh-249201 Fax -021-987070	None
179. Sharma Music Matarani Chowk CPO Road Ludhiana-141008	Sharma Music Matarani Chowk CPO Road Ludhiana-141008	Sharma Music Matarani Chowk CPO Road Ludhiana-141008	Sharma Musics Matarani Chowk CPO Road Ludhiana-141008	Sharma Music Matarani Chowk CPO Road Ludhiana-141080	None
180. Goel Enterprises Nicholson Road Ambala -133001 Fax : 246891	Goel Enterprises Nicholson Road Ambala -133001 Fax : 246891	Goel Enterprise Nicholson Road Ambala -133001 Fax : 246891	Goel Enterprises Nicholson Road Ambala -133010 Fax : 246891	Goel Enterprises Nicholson Road Ambala -133001 Fax : 246893	None
181. Md. Rasul Hasan 12, Amin-ud-Daula Park, Aminabad Lucknow-226018	Md. Rasul Hasan 12, Amin-ud-Daula Park, Aminabad Lucknow-226018	Md. Rasul Hasan 12, Amin-ud-Daula Park, Aminabad Lucknow-226018	Md. Rasul Hasan 21, Amin-ud-Daula Park, Aminabad Lucknow-226018	Md. Rasul Hasan 12, Amin-ud-Daula Park, Aminabad Lucknow-226081	None
182. Neelu Goel SCO 2446 Sector-15 Faridabad-18	Neelu Geol SCO 2446 Sector-15 Faridabad-18	Neelu Goel SCO 2464 Sector-15 Faridabad-18	Neelu Goel SCO 2446 Sector-15 Faridabad-18	Neelu Goel SCO 2446 Sector-15 Faridabad-81	None
183. Kesri Traders Vijay Rattan Chowk, Ambala Phone : 381046	Kesri Trader Vijay Rattan Chowk, Ambala Phone : 381046	Kesri Traders Vijay Rattan Chowk, Ambala Phone : 381046	Kesri Traders Vijay Rattan Chowk, Ambala Phone : 381046	Kesri Traders Vijay Rattan Chowk, Ambala Phone : 381064	None
184. Shivani Gupta 7 Gandhi Market The Mall, Bhatinda Phone : 648137	Shivani Gupta 9 Gandhi Market The Mall, Bhatinda Phone : 648137	Shivani Gupta 7 Gandhi Market The Mall, Bhatinda Phone : 648137	Shivani Gupta 7 Gandhi Market The Mall, Bhatinda Phone : 648173	Shivani Gupta 7 Gandhi Market The Mall, Bhatinda Phone : 648137	None
185. Kamal Garments 5, A Sidhu Market Phagwara Gate Jalandhar-24	Kamal Garments 5, A Sidhu Market Phagwara Gate Jalandhar-42	Kamal Garments 5, A Sidhu Market Phagwara Gate Jalandhar-24	Kamal Garment 5, A Sidhu Market Phagwara Gate Jalandhar-24	Kamal Garments 5, P Sidhu Market Phagwara Gate Jalandhar-24	None

**TARGET SET FOR BANK & RBI CLERICAL EXAM.**

**Directions (186-200) :** Read the following table carefully and answer the questions given below it :

Description of the Opening and the Closing Rates of Shares (in Rupees) of Different Companies over the given period (O = Opened : C = Closed)

Name of the Company	Period									
	1st May		2nd May		3rd May		4th May		5th May	
	O	C	O	C	O	C	O	C	O	C
SKB	78	83	78	85	56	70	49	65	74	88
BTK	33	48	41	43	36	45	39	47	38	42
MGM	66	72	61	68	62	79	60	75	63	64
ARG	51	59	58	67	57	71	62	79	55	69
NPL	22	30	24	45	28	37	29	40	27	35
JVD	82	97	84	96	80	65	81	98	87	93
GLE	23	29	25	36	31	42	28	39	32	41
ZIP	44	56	41	58	39	52	42	57	40	58

**Directions (186-190) :** In each of the following questions you have to find out the maximum opening and closing rates, respectively of the given share over the given period?

186. MGM

- (1) 68,72      (2) 66,79  
(3) 66,75      (4) 66, 68

(5) None of these

187. NPL

- (1) 28, 45      (2) 29, 37  
(3) 28, 27      (4) 29, 45

(5) None of these

188. SKB

- (1) 78, 88      (2) 78,85  
(3) 76,88      (4) 76,85

(5) None of these

189. JVD

- (1) 84, 98      (2) 87,97  
(3) 87, 98      (4) 84, 96

(5) None of these

190. ZIP

- (1) 42, 58      (2) 44, 58  
(3) 44, 56      (4) 42, 56

(5) None of these

**Directions (191-195) :** In each of the following questions you have to find out the company the share of which was closed at the maximum value on the given date?

191. 2nd May

- (1) ZIP      (2) SKB  
(3) JVD      (4) MGM

(5) None of these

192. 4th May

- (1) JVD      (2) MGM  
(3) ARG      (4) SKB

(5) None of these

193. 5th May

- (1) MGM      (2) ARG

- (3) SKB      (4) JVD

(5) None of these

194. 1st May

- (1) MGM      (2) JVD  
(3) ARG      (4) SKB

(5) None of these

195. 3rd May

- (1) SKB      (2) ZIP  
(3) MGM      (4) ARG

(5) None of these

**Directions (196-200) :** During the given period on which of the following dates the share of the given company closed on minimum value?

196. MGM

- (1) 2nd May      (2) 4th May  
(3) 5th May      (4) 3rd May

(5) 1st May

197. NPL

- (1) 3rd May      (2) 5th May  
(3) 1st May      (4) 2nd May

(5) 4th May

198. GLE

- (1) 5th May      (2) 4th May  
(3) 2nd May      (4) 1st May

(5) 3rd May

199. BTK

- (1) 4th May      (2) 5th May  
(3) 2nd May      (4) 3rd May

(5) 1st May

200. ARG

- (1) 1st May      (2) 2nd May  
(3) 3rd May      (4) 4th May

(5) 5th May

**SHORT ANSWERS**

- |          |          |          |          |
|----------|----------|----------|----------|
| 1. (2)   | 2. (4)   | 3. (1)   | 4. (4)   |
| 5. (3)   | 6. (3)   | 7. (1)   | 8. (2)   |
| 9. (3)   | 10. (4)  | 11. (3)  | 12. (3)  |
| 13. (4)  | 14. (1)  | 15. (2)  | 16. (4)  |
| 17. (2)  | 18. (4)  | 19. (3)  | 20. (2)  |
| 21. (1)  | 22. (4)  | 23. (3)  | 24. (1)  |
| 25. (2)  | 26. (3)  | 27. (3)  | 28. (4)  |
| 29. (1)  | 30. (5)  | 31. (2)  | 32. (5)  |
| 33. (4)  | 34. (2)  | 35. (3)  | 36. (5)  |
| 37. (4)  | 38. (2)  | 39. (1)  | 40. (5)  |
| 41. (3)  | 42. (2)  | 43. (1)  | 44. (4)  |
| 45. (2)  | 46. (2)  | 47. (4)  | 48. (3)  |
| 49. (5)  | 50. (3)  | 51. (4)  | 52. (2)  |
| 53. (4)  | 54. (3)  | 55. (1)  | 56. (3)  |
| 57. (1)  | 58. (3)  | 59. (4)  | 60. (4)  |
| 61. (1)  | 62. (3)  | 63. (1)  | 64. (1)  |
| 65. (2)  | 66. (3)  | 67. (2)  | 68. (1)  |
| 69. (2)  | 70. (2)  | 71. (4)  | 72. (2)  |
| 73. (1)  | 74. (2)  | 75. (5)  | 76. (3)  |
| 77. (1)  | 78. (5)  | 79. (5)  | 80. (3)  |
| 81. (1)  | 82. (1)  | 83. (4)  | 84. (3)  |
| 85. (2)  | 86. (3)  | 87. (1)  | 88. (4)  |
| 89. (5)  | 90. (2)  | 91. (4)  | 92. (2)  |
| 93. (3)  | 94. (2)  | 95. (1)  | 96. (5)  |
| 97. (4)  | 98. (2)  | 99. (1)  | 100. (3) |
| 101. (2) | 102. (1) | 103. (3) | 104. (1) |
| 105. (2) | 106. (1) | 107. (4) | 108. (1) |
| 109. (3) | 110. (1) | 111. (4) | 112. (3) |
| 113. (4) | 114. (1) | 115. (3) | 116. (1) |
| 117. (5) | 118. (1) | 119. (2) | 120. (4) |
| 121. (1) | 122. (3) | 123. (2) | 124. (2) |
| 125. (3) | 126. (5) | 127. (5) | 128. (3) |
| 129. (2) | 130. (1) | 131. (2) | 132. (5) |
| 133. (1) | 134. (5) | 135. (4) | 136. (1) |
| 137. (3) | 138. (1) | 139. (1) | 140. (1) |
| 141. (2) | 142. (3) | 143. (3) | 144. (3) |
| 145. (4) | 146. (5) | 147. (3) | 148. (4) |
| 149. (5) | 150. (5) | 151. (4) | 152. (2) |
| 153. (1) | 154. (2) | 155. (3) | 156. (2) |
| 157. (1) | 158. (3) | 159. (4) | 160. (2) |
| 161. (1) | 162. (3) | 163. (2) | 164. (4) |
| 165. (1) | 166. (3) | 167. (2) | 168. (4) |
| 169. (2) | 170. (3) | 171. (2) | 172. (4) |
| 173. (1) | 174. (3) | 175. (2) | 176. (4) |
| 177. (1) | 178. (2) | 179. (1) | 180. (1) |
| 181. (1) | 182. (3) | 183. (3) | 184. (4) |
| 185. (2) | 186. (2) | 187. (4) | 188. (1) |
| 189. (3) | 190. (2) | 191. (3) | 192. (1) |
| 193. (4) | 194. (2) | 195. (3) | 196. (3) |
| 197. (3) | 198. (4) | 199. (2) | 200. (1) |

**TARGET SET FOR BANK & RRB CLERICAL EXAM.**

**ANSWERS WITH EXPLANATION**

**REASONING**

- (1-5) : (i) There are altogether 28 elements.  
 (ii) There are 16 letters.  
 (iii) There are 8 numbers.  
 (iv) There are 6 symbols.  
 (v) The middle pair of elements is 7M.  
 1.(2) Required element  
 $= 9 + 10 = 19$ th element from right  
 OR  
 $(28 - 19) + 1 = 10$ th element from left

J B 1 A K R D • 4 U F Z O.....

10th from left

- 2.(4) 8th element from left  $\rightarrow$  O  
 13th element from right  $\rightarrow$  C  
 Remaining elements between and C :

4 U F [Z] @ 7 M

Middle element

3.(1) K  $\xrightarrow{+4}$  4  $\rightarrow$  Z

M  $\xrightarrow{+3}$  S  $\xrightarrow{+2}$  T

B  $\xrightarrow{+3}$  K  $\xrightarrow{+2}$  D

@ -

T  $\xrightarrow{+3}$  E  $\xrightarrow{+2}$  2

- 4.(4) According to question the new sequence would be :

U 4 DRKA1BJT5SPC [M 7 ZF Q] 8 x 28 EVH  
 5th to right of M

5.(3) F  $\xrightarrow{+2}$  O  $\xrightarrow{+3}$  C  $\xrightarrow{+4}$

R  $\xrightarrow{+3}$  4  $\xrightarrow{+3}$   $\rightarrow$  9

A  $\xrightarrow{+2}$  R  $\xrightarrow{+3}$  4  $\xrightarrow{+4}$

- (6-10) : On the basis of given information and conclusions and sub-conclusions drawn from them we can draw the following table :

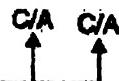
Person	Sex	State	Profession	Relation
A	Female	Gujarat	Lecturer	Wife of F
B	Male	Bihar	Editor	Husband of G
C	Female	Assam	Doctor	Wife of E
D	Male	Karnataka	Surveyor	—
E	Male	Rajasthan	Manager	Husband of C
F	Male	U.P.	Engineer	Husband of A
G	Female	Punjab	Teacher	Wife of B

Note

- (i) The three female members : A, C and G.  
 (ii) The married couples : AF, BG and CE.

(11-12)

E



13.(4)

HANDLE J D P G N H

+2	+3	+2	+3	+2	+3
----	----	----	----	----	----

Similarly,

PATROL R D V U Q O

+2	+3	+2	+3	+2	+3
----	----	----	----	----	----

14.(1)

1 2 3 4 5 6 7 8 9 10 11  
 I N T E G R A T I O N

Specified letters : I, T, G, T

No meaningful word can be formed.

15.(2)

C O N V U L S E

Thus, there are three such pairs of letters.

16.(4)

5 students      6th  
 Reshma      34 students  
 35th

Total number of students in the class

$$= 5 + 1 + 34 = 40$$

Total number of students in a class =  $\frac{(\text{Rank of a student}) + (\text{Rank of last student})}{2} - 1$

$$= (6 + 35) - 1$$

$$= 41 - 1 = 40$$

Rahul's rank from bottom

$$= (40 - 12) + 1$$

$$= 28 + 1 = 29\text{th}$$

17.(2)

572471 4 4271726475  
 72476742

Thus, there are two such 7s.

- 18.(4) Both the premises are already aligned.

Some boats are ships.

All ships are tapes.

We know that,

I + A  $\Rightarrow$  I type conclusion.

Thus, our derived conclusion would be : "Some boats are tapes".

19.(3)

O + #  $\Rightarrow$  Play and Swim

+ % O  $\Rightarrow$  Swim and Drink

+ \$ £  $\Rightarrow$  Write and See

It is clear that code for play is #.

20.(2) Alphabetical order

A C C E I N O R T V

7th letter from right

21.(1) L I T E R A C Y  
 ↓ ↓ ↓ ↓ ↓ ↓ ↓  
 # Δ + \* O E S %

22.(4) Keyword

' 1 2 3 4 5 6  
 cop rye gel tim kem sep

Password

4 2 5 1 6 3  
 tim rye kem cop sep gel

Similarly,

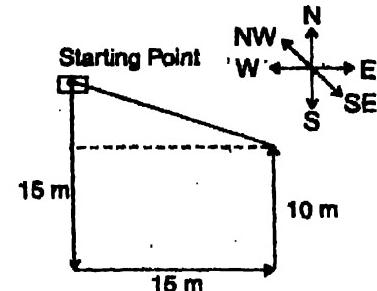
Keyword

1 2 3 4 5 6  
 rad tiv suhene ayn dut

Password

4 2 5 1 6 3  
 ene tiv ayn rad dut suh

23.(3)



It is clear from the diagram that Jayesh is now South-East direction with reference to the starting point.

24.(1) Given expression

$$12 + 3 + 22 \times 35 - 7 = ?$$

After conversion

$$? = 12 \times 3 - 22 + 35 +$$

$$? = 12 \times 3 - 22 + 5$$

$$? = 36 - 22 + 5$$

$$? = 41 - 22 = 19$$

25.(2) My father-in-law's only daughter means my wife. Brother-in-law of my wife means my brother.

26.(3) In each subsequent figure one design is introduced alternately

in front of and behind the pre-existing design (s) and all the designs move half a step in clockwise direction.

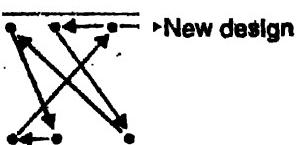
**27.(3)** In each subsequent figure the design (T) moves one step in anticlockwise direction and one new design is introduced in front of and behind it at a distance of half a step alternately and the new designs also move in clockwise direction maintaining the similar gap with that of the original design.

**28.(4)** From Problem Figure (1) to (2) the pre-existing design moves one step clockwise and gets flanked by two new designs. Similar changes would occur from Problem Figure (3) to (4) and from Problem Figure (5) to Answer Figure (4).

**29.(1)** From Problem Figure (1) to (2) all the designs move half a step anticlockwise and the middle design is replaced by a new design and a new design is introduced in front of the pre-existing designs. Similar changes would occur from Problem Figure (3) to (4) and from Problem Figure (5) to Answer Figure (1).

**30.(5)** The designs move from right to left stepwise and from left to right in one step. Again each design descends half a step and a new design is introduced at the top position.

**31.(2)** The movement and changes in designs in each subsequent figure can be shown as :

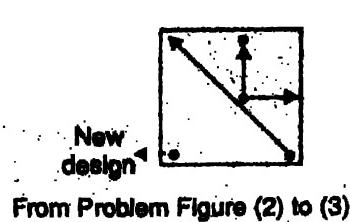


**32.(5)** In each subsequent figure all the designs rotate 90° clockwise and the first and the second designs interchange position so as the third and the fourth designs.

**TRICK :** This problem is based on the rule (1) = (5) and hence (2) = (6).

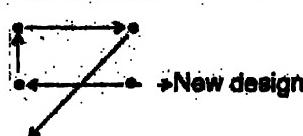
**33.(4)** The line segment moves inside the hexagon in alternate figure and moves one step clockwise in each subsequent figure while the cross-sign moves two steps in anticlockwise direction.

**34.(2)** The movement and change in designs from Problem Figure (1) to (2) can be shown as :



Similar changes occur from Problem Figure (3) to (4).

**45.(2)** The movement and change in designs from problem Figure (1) to (2) can be shown as :



Similar changes occur from Problem Figure (3) to (4).

**46.(2)** Alternately two and three curves are added in clockwise direction in the subsequent figures.

**47.(4)** The arrow (↑) rotates 90° and 180° clockwise alternately, the pinhead (○) rotates 90° anticlockwise while the pentagon (◇) rotates 180° and 90° clockwise alternately.

**48.(3)** In each subsequent figure all the designs move one step anticlockwise and the design which reaches upper left corner gets replaced by a new design.

**49.(6)** In each subsequent figure all the designs move anticlockwise and a new design appears in the left sector.

**50.(3)** From Problem Figure (1) to (2) the two right side designs interchange position while a new design appears in the lower left corner. From Problem Figure (2) to (3) the two left side designs interchange position and a new design appears in upper right corner. Therefore, from Problem Figure (4) to (5) the two left side designs would interchange position and a new design would appear in the upper right corner.

### ENGLISH

**60.(4)** 'Predicted' means to foreshow, to foretell, prophecy etc. So, if we keep in mind the context of the passage where 'predicted' has been used, then 'foretell' should be chosen as the right option.

**61.(1)** 'Dismal' means cheerless, gloomy, sorrowful etc. So, here 'sorrowful' is the right synonym.

**62.(3)** 'Demographic' means vital and social statistics of nations, study of population etc. So option (3) is the correct answer.

**63.(1)** 'Evolved' means developed,

**TARGET SET FOR BANK & RAILWAY EXAM.**

unfold, spread out etc. So 'decayed' is its correct antonym.

64.(1) 'Decline' means decrease deteriorate, droop etc. So, 'increase' is the opposite to it.

65.(2) 'Barrier' means obstruction, enclosure, barricade etc. So option (2) i.e., 'release' is the correct answer.

66.(3) Change 'have developed' into 'has developed' because the subject of the sentence is 'study' (singular). So it will take a singular verb. After preposition, we use verb according to the subject used before preposition. As:

The water of these wells is dirty.  
 ↓      ↓      ↓  
 S.N. Pre      S.V.

67.(2) Change 'he is not ready' into 'he was not ready', because the principal clause is in past tense, so the subordinate clause will also be in past tense. Ex.

She said that she had gone.  
 ↓      ↓

past tense    past tense

68.(1) 'That' should be replaced by 'whether' because when statement is suspected, we use 'whether' instead of 'that'. Ex.

She does not know that this road goes there. —Wrong

She does not know whether this road goes there. —Correct

69.(2) Replace 'searched through' by 'searched thoroughly' because adjective (through) cannot modify verb 'searched'. Verb is modified by adverb. As:

I have read it thoroughly.  
 ↓      ↓  
 V.      Adv.

70.(2) Replace 'were' by 'was' because 'neither of' and 'either of' are followed by singular verb. As:

Neither of the two boys was present.  
 ↓      ↓  
 neither of      S.V.

71.(4) Use 'a few years' at the place of 'few years' because 'few' means nothing and it cannot be used in affirmative sense. Ex.

After a long demand he gave me few books. —Wrong

After a long demand he gave me a few books. —Correct

72.(2) Use 'scene clearly' at the place of 'scene clear'. Because adjective (clear) cannot modify verb (watch). As:

I watched the movie clear. —Wrong  
 I watched the movie clearly. —Correct

73.(1) Participle must be connected with a subject. So use

'while she was going to' at the place of 'going to'.

74.(2) Change 'that why' into 'why', because 'that' cannot be used before why, what, when etc. As,

She asked me that where he had gone. —Wrong

She asked me where he had gone. —Correct

75.(5) The sentence is correct.

**MATHEMATICS**

**101.(2) Method I :**

$$\begin{aligned} ? &= 21 \frac{3}{4} + 8 \frac{1}{2} + 17 \frac{6}{7} - 3 \frac{16}{17} \\ &= \frac{87}{4} + \frac{17}{2} + \frac{125}{7} - \frac{67}{17} \\ &= \frac{10353 + 4046 + 8500 - 1876}{476} \end{aligned}$$

$$21023 = 44.165$$

**Method II :**

$$\begin{aligned} ? &= (21+8+17-3) + \left( \frac{3}{4} + \frac{1}{2} + \frac{6}{7} - \frac{16}{17} \right) \\ &= 43 + \frac{357 + 238 + 408 - 448}{476} \\ &= 43 + \left( \frac{555}{476} \right) = 44.165 \end{aligned}$$

$$102.(1) ? = 12389.16 + 32896.002$$

$$\begin{aligned} &+ 18.004 - 3 \frac{3}{4} \\ &= 45303.166 - 3.5 = 45299.666 \\ 103.(3) ? &= 182456 + 32894 \\ &- 32012 + 16.83 + 2.17 \\ &= 183338 + 16.83 + 2.17 \\ &= 183357 \\ 104.(1) ? &= \frac{18 \times 3 - 2 \times 4 + 3.24 \times 25}{11 \times 2 + 3 \times 2 - 12 \times 7} \end{aligned}$$

$$= \frac{54 - 8 + 8.1}{22 + 6 - 84} = \frac{54.1}{-56} = -0.966$$

**105.(2) Method I :**

$$\begin{aligned} ? &= 17 \frac{3}{2} + 5 \frac{19}{21} + 7 \frac{21}{19} \\ &= \frac{37}{2} + \frac{124}{21} + \frac{154}{19} \\ &= \frac{14763 + 4712 + 6468}{798} \\ &= \frac{25943}{798} = 32 \frac{407}{798} \end{aligned}$$

**Method II :**

$$? = 17 \frac{3}{2} + 5 \frac{19}{21} + 7 \frac{21}{19}$$

$$= (17+5+7) + \left( \frac{3}{2} + \frac{19}{21} + \frac{21}{19} \right)$$

$$= 29 + \frac{1197 + 722 + 882}{798}$$

$$= 29 + \left( \frac{2801}{798} \right) = 29 + 3 \frac{407}{798}$$

$$= 32 \frac{457}{798}$$

$$106.(1) ? \% \text{ of } 23 = 819 + 1013 + 1903$$

$$\frac{? \times 23}{100} = 3735$$

$$\therefore ? \times 23 = 3735 \times 100$$

$$\therefore ? = \frac{3735 \times 100}{23} = 16239.13$$

$$107.(4) ? \% \text{ of } 23 + 880 = 580 + 15\% \text{ of } 620$$

$$\Rightarrow \frac{? \times 23}{100} + 880 = 580 + \frac{15 \times 620}{100}$$

$$580 + 15 \times 6.20 = 880$$

$$\Rightarrow \frac{-207}{100} = -207$$

$$\Rightarrow ? = -\frac{207 \times 100}{23}$$

$$= -900$$

$$108.(1) ? = 587 + 887 + 342 - 1125 + 301$$

$$= 587 + 887 + 342 + 301 - 1125 = 2117 - 1125 = 992$$

$$109.(3) ? = \frac{3^2 + 5^2 - 4^2}{81 - 47}$$

$$= \frac{9 + 25 - 16}{34} = \frac{18}{34} = \frac{9}{17}$$

$$110.(1) ? \% \text{ of } 40 = 8 \% \text{ of } 881 + 7 \% \text{ of } 200$$

$$\Rightarrow \frac{? \times 40}{100} = \frac{8 \times 881}{100} + \frac{7 \times 200}{100}$$

$$\Rightarrow \frac{? \times 40}{100} = 8 \times 88.1 + 7 \times 2$$

$$\Rightarrow \frac{? \times 40}{100} = 70.48 + 14$$

$$? \times 40 = 84.48 \times 100$$

$$84.48 \times 100 = 40$$

$$\therefore ? = 211.2$$

$$111.(4) ? = 7892 + 8888 + 3333 - 10121$$

$$= 20113 - 10121 = 9992$$

$$112.(3) ? \% \text{ of } 41 = 20.3 \% \text{ of } 400 + 8 \% \text{ of } 800 + 3 \% \text{ of } 200 \\ ? \% \text{ of } 41$$

$$= \frac{20.3 \times 400}{100} + \frac{8 \times 800}{100} + \frac{3 \times 200}{100}$$

$$\frac{? \times 41}{100} = \frac{20.3 \times 400}{100} + \frac{8 \times 800}{100} + \frac{3 \times 200}{100}$$

$$\therefore ? \times 41 = 20.3 \times 400 + 8 \times 800 + 3 \times 200$$

$$\therefore ? \times 41 = 8120 + 6400 + 600$$

$$\therefore ? = \frac{15120}{41} = 368.780$$

113.(4) Method I :

$$? = 13 \frac{17}{19} + 12 \frac{13}{17} + 25 \frac{4}{7}$$

$$= \frac{264}{19} + \frac{217}{17} + \frac{179}{7}$$

$$= \frac{31416}{2261} + \frac{28861}{2261} + \frac{57817}{2261}$$

$$= \frac{118094}{2261} = 52 \frac{522}{2261}$$

Method II

$$? = 13 \frac{17}{19} + 12 \frac{13}{17} + 25 \frac{4}{7}$$

$$= (13+12+25) + \left( \frac{17}{19} + \frac{13}{17} + \frac{4}{7} \right)$$

$$= 50 + \left( \frac{2023+1729+1292}{2261} \right)$$

$$= 50 + \frac{5044}{2261}$$

$$= 50 + 2 \frac{522}{2261}$$

$$= 52 \frac{522}{2261}$$

$$114.(1) ? = 11 \frac{2}{4} \times 8 \frac{4}{9} + \frac{1}{20}$$

$$= \frac{46}{4} \times \frac{76}{9} \times 20 = 1942.222$$

$$115.(3) ? = \frac{201+21+820 \times 2}{802+401-3 \times 2+9}$$

$$= \frac{9.57+1640}{2-6+9} = \frac{1649.57}{5}$$

$$= 329.914$$

$$116.(1) ? = 33333 + 3333 + 333 + 33 + 3$$

$$= 36666 + 366 + 3$$

$$= 36666 + 369 = 37035$$

$$117.(5) ? = 2423.72 - 201.84 + 802.92 + 2212.84$$

$$= 5439.48 - 201.84 = 5237.64$$

$$118.(1) ? = 980 \div 4 \times 4 - 2 \times 4 \div 2$$

$$= 245 \times 4 - 2 \times 2 = 980 - 4 = 976$$

$$119.(2) ? = 2 \frac{1}{2} + \frac{5}{2} + 4002 - 300$$

$$= \frac{5}{2} + \frac{5}{2} + 4002 - 300$$

$$= \frac{5}{2} \times \frac{2}{5} + 4002 - 300$$

$$= 1 + 4002 - 300$$

$$= 4003 - 300 = 3703$$

$$120.(4) ? = 890 - 320 + 120 \div 40 + 20$$

$$= 570 + 3 + 20 = 593$$

$$121.(1) ? \% \text{ of } 80 - 2 \% \text{ of } 2 = 9 \% \text{ of } 900$$

$$\Rightarrow \frac{? \times 80}{100} - \frac{2 \times 2}{100} = \frac{9 \times 900}{100}$$

$$\Rightarrow ? \times 80 - 4 = 8100$$

$$\Rightarrow ? \times 80 = 8100 + 4$$

$$\therefore ? = \frac{8104}{80} = 101.3$$

$$122.(3) ? = 11123 - 11111 + 2213$$

$$- 2111$$

$$= 13336 - 13222 = 114$$

$$123.(2) ? = 5555 + 555 + 55 + 5$$

$$= 6110 + 60 = 6170$$

$$124.(2)$$

$$? \% \text{ of } 200 + 50 \% \text{ of } 500 = 100$$

$$80 \% \text{ of } 800 + 70 \% \text{ of } 700 = 100$$

$$\Rightarrow \frac{? \times 200 + 50 \times 500}{80 \times 800 + 70 \times 700} = 100$$

$$\Rightarrow \frac{? \times 200 + 25000}{64000 + 49000} = 100$$

$$\Rightarrow ? \times 200 + 25000 = 11300000$$

$$\Rightarrow ? \times 200 = 11300000 - 25000$$

$$\Rightarrow ? \times 200 = 11275000$$

$$\therefore ? = \frac{11275000}{200} = 56375$$

$$125.(3) ? = 1002 - 21.23 + 800.86$$

$$- 201.42$$

$$= 1802.86 - 222.65 = 1580.21$$

$$126.(5) \text{ We know that }$$

Simple Interest

$$= \frac{\text{Principal} \times \text{Rate} \times \text{Time}}{100}$$

According to question,

Principal = Rs. 400, Rate = 5%,

Time = 3 years

$$\therefore \text{Simple Interest} = \frac{400 \times 5 \times 3}{100}$$

$$= \text{Rs. } 60$$

127.(5) According to question,

Maximum number of tables = 6

and number of chairs = 2

$\therefore$  Required ratio = 2 : 6 = 1 : 3

128.(3) Quantity of milk in original

$$\text{mixture} = \frac{35}{4+1} \times 4 = 28 \text{ litres}$$

Quantity of water in original mixture

$$= 7 \text{ litres}$$

Quantity of milk in new mixture

$$= 28 \text{ litres}$$

Quantity of water in new mixture

$$= 14 \text{ litres}$$

$\therefore$  Required ratio = 28 : 14 = 2 : 1

129.(2) We know that

Distance = Speed  $\times$  Time

According to question,

Speed = 79.8 km/hr.

$$= \frac{79.8 \times 1000}{60} \text{ metres/minute}$$

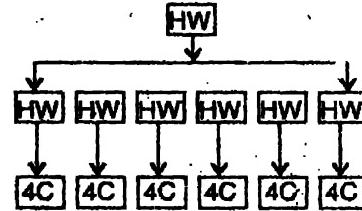
$$= 1330 \text{ metres/minute}$$

$$\text{Time} = 15 \text{ minutes}$$

$$\therefore \text{Distance} = 1330 \times 15 \text{ metres}$$

$$= 19950 \text{ metres}$$

130.(1) According to question,



Here,

H indicates Husband

W indicates Wife

C indicates Children.

$\therefore$  Total number = 2 + 12 + 4 × 6

$$= 14 + 24 = 38$$

131.(2) Raman's Speed = 5 metres per second

$$= \frac{5 + 1000}{1 + 60 + 60} \text{ km/hr.}$$

$$= \frac{5 \times 60 \times 60}{1000} \text{ km/hr.} = 18 \text{ km/hr.}$$

132.(5) We know that

Simple Interest

$$= \frac{\text{Principal} \times \text{Rate} \times \text{Time}}{100}$$

According to question,

In First Case :

Amount = S.I. + Principal

$$2800 = \text{S.I.} + x$$

In Second Case :

$$3250 = \text{S.I.} + x$$

or, Simple interest in first case

$$= \frac{(2800 - x) \times r \times 3}{100}$$

**Simple interest in second case**

$$\frac{(3250 - x) \times r \times 5}{100}$$

**Simple Interest in two years**

$$= 3250 - 2800 = 450$$

**S.I. in one year = Rs. 225**

**S.I. in three years = Rs. 675**

**Principal = 2800 - 675**

**= Rs. 2125**

$$675 = \frac{2125 \times r \times 3}{100}$$

$$r = \frac{675 \times 100}{2125 \times 3} = 10.58\%$$

**133.(1) Cost price of 12 pencils**

$$= 12 \times 5 = 60 \text{ paise}$$

**Selling price of 12 pencils**

$$\frac{60 \times 120}{100}$$

**= 72 paise**

**134.(5) According to question,**

$$\frac{\text{Mukesh}}{\text{Rakesh}} = \frac{4}{3}$$

**and at present**

**Mukesh's age - Rakesh's age**

$$= 26 - 6$$

**Mukesh's age - Rakesh's age**

$$= 20 \text{ years}$$

**or, } 4x - 3x = 20 \text{ years}**

$$\therefore 3x = 60 \text{ years}$$

**i.e. Rakesh age at present.**

**135.(4) Area of land = 40m × 35m**

$$= 1400 \text{ m}^2$$

**Area of brick = 20cm × 5cm**

$$= 0.20 \text{ m} \times 0.05 \text{ m} = 0.01 \text{ m}^2$$

**∴ Total number of bricks required**

$$= \frac{1400}{0.01} = 140000$$

**136.(1) Let the profit of x, y and z be 5x, 7x and 8x respectively.**

**∴ According to question,**

$$5x = 42360$$

**∴ Total profit = 5x + 7x + 8x = 20x**

$$\therefore 20x = 42360 \times 4 = \text{Rs. } 169440$$

**137.(3) According to question,**

$$7.70 \text{ kg} = 7.70 \times 1000 \text{ gms.}$$

$$= 7700 \text{ gms.}$$

$$\therefore \text{Required number} = \frac{7700}{350} = 22$$

**138.(1) Let the price of a scooter and a computer be 3x and 2x respectively.**

**∴ According to question,**

$$3x - 2x = \text{Rs. } 6000$$

$$\text{or, } x = \text{Rs. } 6000$$

**∴ Price of a computer = 2x**

$$= \text{Rs. } 2 \times 6000 = \text{Rs. } 12000$$

**139.(1) Let Nitu and her mother present age be x and y years respectively.**

**∴ According to question,**

$$x + y = 63 \quad \dots \text{(i)}$$

$$(y - 4) = (x - 4) \times 4$$

$$\text{Or, } y - 4 = 4x - 16$$

$$\text{Or, } y - 4x = -12$$

$$\text{Or, } 4x - y = 12 \quad \dots \text{(ii)}$$

**After solving equation (i) and (ii) we get**

$$5x = 75$$

$$x = 15 \text{ years}$$

$$\therefore y = 63 - 15 = 48 \text{ years}$$

**140.(1) We know that**

**Profit of Rakesh**

**Profit of Mona**

$$= \frac{\text{Rakesh's Investment} \times \text{Time}}{\text{Mona's Investment} \times \text{Time}}$$

**∴ According to question,**

$$\frac{\text{Profit of Rakesh}}{\text{Profit of Mona}} = \frac{\text{Rs. } 30,000 \times 12}{\text{Rs. } 15,000 \times 6}$$

$$= \frac{4}{1}$$

**Now,**

$$4x + 1x = \text{Rs. } 10000$$

$$5x = \text{Rs. } 10000$$

$$\therefore x = \text{Rs. } 2000$$

**∴ Rakesh's share in profit = 4x**

$$= 4 \times \text{Rs. } 2000 = \text{Rs. } 8000$$

**141.(2) ∴ Average age of 32 students = 10 years**

**∴ Total age of 32 students**

$$= 32 \times 10 = 320 \text{ years}$$

**Now,**

**Average age of 32 students and teacher = 11 years**

**∴ Total age of 33 students including teacher = 11 × 33 = 363 years**

$$\therefore \text{Age of teacher} = 363 - 320$$

$$= 43 \text{ years}$$

**142.(3) ∴ 16 men can complete the whole work in 12 days**

**∴ 16 men one day's work =**

$$= \frac{1}{12}$$

**∴ 16 men four day's work =**

$$= \frac{4}{12} = \frac{1}{3}$$

**∴ 1 man one day's work =**

$$= \frac{1}{12 \times 16} = \frac{1}{192}$$

**∴ 4 men one day's work =**

$$= \frac{4}{192} = \frac{1}{48}$$

**∴ 4 men 4 day's work**

$$= \frac{4 \times 4}{12 \times 16} = \frac{16}{192} = \frac{1}{12}$$

$$\therefore \text{Remaining work} = 1 - \frac{1}{3} = \frac{2}{3}$$

$$\therefore 16 \text{ men's 4 days work} = \frac{1}{3}$$

$$\therefore \text{Remaining work} = \frac{2}{3} - \frac{1}{3} = \frac{1}{3}$$

**∴ Number of more men required = 16**

**143.(3) According to question,**

$$\therefore 20\% \Rightarrow \text{Rs. } 15$$

$$\therefore 80\% = \frac{15}{20} \times 80 = \text{Rs. } 60$$

**144.(3) According to question,**

**Cost price of suitcase = Rs. 1860**

**∴ For 35% profit its selling price = Rs. } 1860 \times 1.35 = \text{Rs. } 2511**

**145.(4) According to question,**

$$\text{His.} = E + 20 \quad \dots \text{(i)}$$

$$\text{Hindi} + E = 70$$

$$\text{or, Hindi} + E = 140 \quad \dots \text{(ii)}$$

**Here, the number of unknown quantities is three and equation available for solving these quantities is two. Therefore, we can't determine the required answer.**

**146.(5) Let the cost price of article be Rs. x**

**According to question,**

**S.P. of article = 0.80x**

**Now,**

**If C.P. of article = 0.80x**

**and S.P. of article = 0.80x + 55**

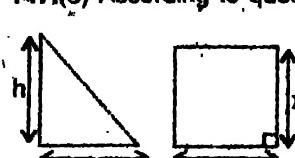
$$\text{or, } 0.80x + 55 = 0.80x \times 1.40$$

$$\text{or, } 1.12x - 0.80x = 55$$

$$\text{or, } 0.32x = 55$$

$$\therefore x = \frac{55}{0.32} = \text{Rs. } 171.875$$

**147.(3) According to question,**



$$\therefore \frac{1}{2} \times x \times h = x \times x$$

**∴ Altitude of triangle = 2x**



**TEST - V**  
**DESCRIPTIVE TEST**

**Ques. 1 : Suggest three measures to fight effectively against the menace of dowry.**

**Ans.** Dowry is truly a nuisance in our country which leads to marital infights and bride-burning. It is indeed necessary to check the evil of dowry. The following are the three suggested measures.

(1) Taking and giving of dowry has been made an offence, yet it has hardly been found to be effective. Therefore, the law should be made more stringent with the provision that all marriages be registered. At the same time the parents/guardians of the marrying spouses be made to give an undertaking at the time of registration that no dowry has been given or received with the onus of proving otherwise if found guilty.

(2) Besides this legal provision, women should be ensured of economic independence so as to make them not only equal to men but also being in a position to resist the demands of dowry. That is state should actively intervene to strengthen the position of women in terms of their literacy and employability.

(3) However, it cannot be denied that it is impossible to check the menace of dowry unless a moral revolution percolates down to the masses. An awareness campaign at a massive level is therefore desirable not merely amongst youths who are even otherwise morally and ideologically sound but also amongst the older generations having children of marriageable age.

**Ques. 2 : "If human beings had wings". Write three possible consequences of the above mentioned hypothetical situation.**

**Ans.** Human beings are imaginative and dreamer by nature. The expressions of human fantasies are depicted even in the earliest cave paintings which may perhaps give us an insight into human imagination. The following will be the three consequences of the above given situation.

(1) The most important consequence of human beings having or

developing wings would be the drastic reduction in the travelling and transportation expenditure. Surely, the flying human beings would safely and smoothly commute from one place to another; perhaps even at a greater speed. Walking or travelling on land and in water would merely be for pleasure. Infact the human beings, given their temperament would be great-flyers; as great as their flights of fancy.

(2). One very important consequence of the phenomenon of flying human beings would be the route of human migration and settlement. They would perhaps not lead a settled life. Nor would they face the problem of dwelling as they are facing now. Today, forests are being felled and environment being damaged so as to provide mankind with better material amenities. This would not have been the case had human beings' ability to fly been materialised, because the human requirement for space on land would have been much reduced. One wonders if the artificial boundaries on land dividing nations, or even private lands would have existed or not? Or, human beings would have needed visa and passport to fly over to the other countries? Perhaps the picture of human migration and settlement would have been remarkably different allowing no territorial divisions on land.

(3) With all these positive consequences, would there have been negative consequence, also, if any? Perhaps there would definitely have been one negative consequence. To the category of handicapped human beings would have been added one more class of 'Wingless human beings'. These human beings would have lost their wings because of the tragedies of defective birth or accident. In some cases, we can even see consequences like "cutting of wings" as punishment to some human beings who might have misused their wings or put it to an illegal use. Such human beings would have led a forlorn, empty and melancholic life shorn of those beautiful and sturdy limbs called wings.

**Ques. 3 : Given the reality of Indian Polity, the Presidential form of government would be more suitable. Comment.**

**Ans.** India is a big country with diversities of caste, religion, race, culture, language, region etc. Surely in a plural society like India only a man of strong character and depth of vision would be fit to rule at the helm. This is possible only in a presidential form of government. The Parliamentary form of government does not envisage the countrywide mandate to a single person to rule.

The other problem with the parliamentary form of government is that the ministers chosen in different ministries are not always competent persons to rule. In the Presidential form of government one relies on the wisdom of the President to choose competent ministers and administrators.

Despite these problems with the Parliamentary form of government, it is difficult to deny that in certain sense parliamentary form of government is more suitable to India. The Indian Prime Minister is quite often a man of greater vision, character and mass appeal. In a way he or she enjoys a national mandate. In the Presidential form of government, the President in a certain shows returns favours to his near and dear ones. In Indian conditions, this is likely to lead to corruption in the body polity.

In the Presidential form of government, there are greater chances for the president to turn a dictator, while this is also true of the Prime Minister in India if he enjoys absolute majority. But since in India there is a multi party system and plurality of opinion, this would be less likely in India. In case of India the Prime Minister does not enjoy a 'veto' like in the presidential system.

Although the Parliamentary form of democracy may have several drawbacks, at least it has one superiority over the Presidential form of government. All the members of the Government in the Parliamentary form are directly elected. Thus, they have the mandate to rule. This is not the case in the Presidential form of government.

*In The New Millennium*

# KIRAN PRAKASHAN'S *Another Milestone*

for

# BANK P.O.

Aspirants

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# BANK CLERICAL & RBI CLERICAL EXAM.

SET-2

## TEST-I REASONING

**Directions (1-5) :** Read the following letter-digit-symbol sequence carefully and answer the questions given below it :

C Δ 5 M R E 7 ↑ J ● S 3 ♡ T D L 2  
H Q 8 ● P @ A # K 6 N

1. Which of the following element will be midway between the tenth element from your right and the ninth element from the left?

- (1) D                   (2) T
- (3) E                   (4) 3
- (5) None of these

2. If the elements C and Δ interchange their positions, so as 5 and M, R and E and so on upto 6 and N interchange positions which element will be eleventh element to the left of the fifth element from your right?

- (1) £                   (2) 3
- (3) D                   (4) T
- (5) None of these

3. If the second half of the above sequence is written in the reverse order which of the following will be ninth to the left of 'H'?

- (1) 6                   (2) N
- (3) J                   (4) K
- (5) None of these

4. What should come in the place question-mark (?) in the following series?

- |                   |         |     |   |
|-------------------|---------|-----|---|
| JPD               | SQL     | £LH | ? |
| (1) L 3●          | (2) DT8 |     |   |
| (3) D£●           | (4) T3P |     |   |
| (5) None of these |         |     |   |

5. Four of the following five are alike in a certain way and hence form a group. Which one does not belong to that group?

- (1) R ↑               (2) 28P
- (3) SDH               (4) CME
- (5) P#6

6. In a certain code language NIMBUS is written as PWDJKP. How will RELICT be written in that code language?

- (1) QEKIGT           (2) PFJLGT
- (3) QEKMGT          (4) QKFHFS
- (5) None of these

7. How many such pairs of letters are there in the word GRANULE which have as many letters between them in the word as they have in the English alphabet?

- (1) One               (2) Two
- (3) Three             (4) Four
- (5) None of these

8. If all the letters in the word MIRACULOUS are arranged in alphabetical order which pair will be at the middle position?

- (1) LM               (2) MO
- (3) OR               (4) RS
- (5) LO

9. In a certain code language 'A' is written '+', 'E' as 'Σ', 'G' as '@', 'H' as '\$', 'N' as '#', 'O' as \* and 'X' is written as 'Δ'. How will HEXAGON be written using the above codes?

- (1) \$ £ Δ @ # \* +
- (2) Σ @ # Δ \* + \$
- (3) \$ £ Δ + @ \* #
- (4) \$ # £ \* Δ @ +

10. If 'A' means '+', 'B' means 'x', 'C' means '-' and 'D' means '×', then what will be the value of

- 9 D 4 B 3 C 6 5 A 5 ?
- (1) 26               (2) 28
  - (3) 34               (4) 13
  - (5) None of these

**Directions (11-15) :** Read the following information carefully and answer the questions given below it :

(i) In a group of six persons namely, Radha, Ajay, Mala, Sonu, Satish, and Mita, Mala and Satish are intelligent in Physics and Chemistry.

(ii) Mala and Radha are intelligent in English and Chemistry.

(iii) Mita and Sonu are intelligent in History and English.

(iv) Ajay and Radha are intelligent in Mathematics and Physics.

(v) Mita and Ajay are intelligent in Mathematics and English.

11. Who among the following is intelligent in English, Mathematics and History?

- (1) Mala             (2) Satish
- (3) Mita             (4) Radha
- (5) None of these

12. Who among the following is intelligent in Physics and Chemistry but not in English?

- (1) Satish           (2) Radha
- (3) Ajay             (4) Mala
- (5) None of these

13. Who among the following is intelligent in Physics and English but not in Mathematics?

- (1) Radha           (2) Ajay
- (3) Mita             (4) Mala
- (5) None of these

14. Which of the following pair is intelligent in Physics, Mathematics and English as well?

- (1) Ajay—Mala
- (2) Mala—Satish
- (3) Ajay—Radha
- (4) Radha—Mala
- (5) None of these

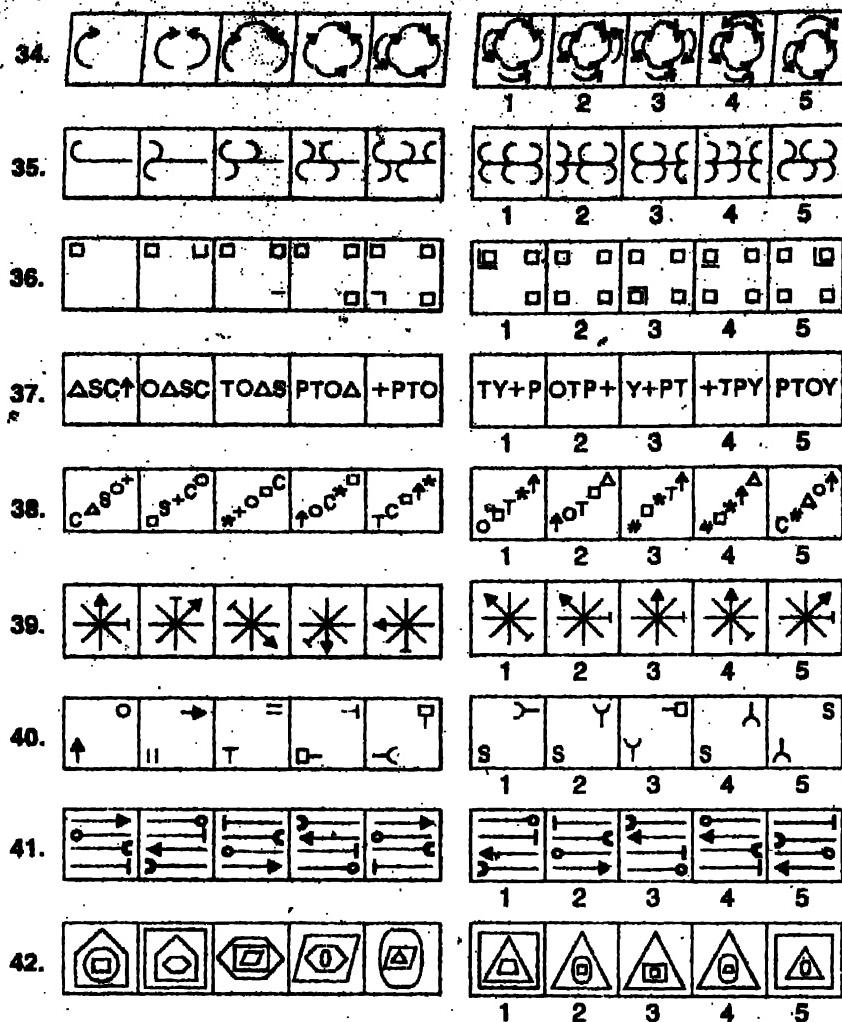
15. How many persons are intelligent in more than two subjects?

- (1) Two             (2) Three
- (3) Four             (4) One
- (5) None of these

16. If (i) Shyama is taller than Abhay, (ii) Ranjan is taller than Chandra but shorter than Veena, (iii) Abhay is shorter than Chandra and Chandra is taller than Shyama, then who is the tallest among them?

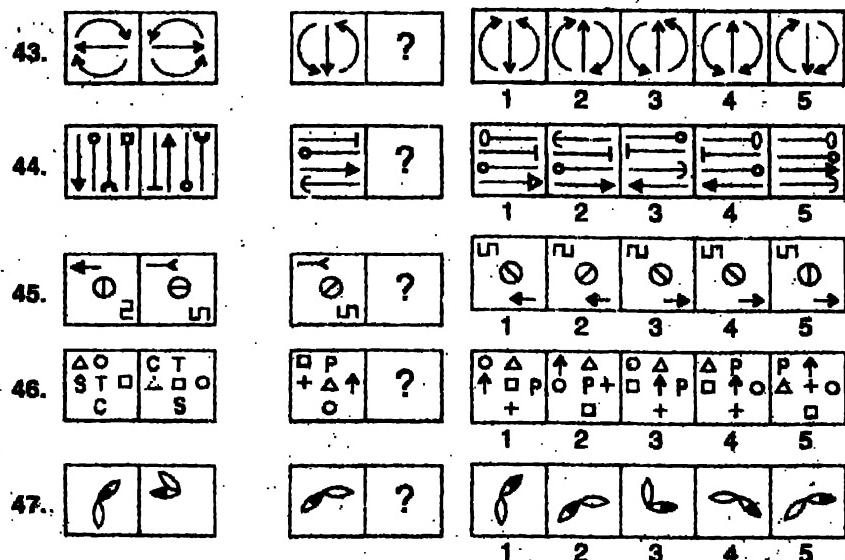
- (1) Shyama           (2) Chandra
- (3) Abhay            (4) Veena
- (5) None of these





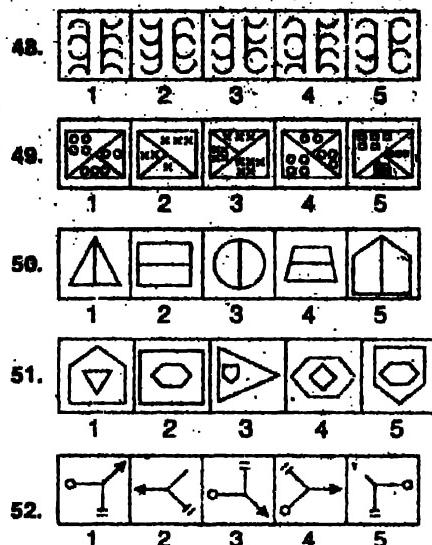
**ANALOGY**

**Directions (43-47) :** The second figure in the first unit of the problem figures bears a certain relationship to the first figure. Similarly one of the figures in the answer figures bears the same relationship to the first figure in the second unit of the problem figures. You are therefore to locate the figure which would fit the question mark.



**CLASSIFICATION**

**Directions (48-52) :** Out of the given five figures, four are similar in a certain way. One figure is not like the other four. That means four figures form a group. The question is which one of the figures does not belong to this group?



**TEST-II  
ENGLISH**

**Directions (53-62) :** Head each sentence to find out whether there is any error, in it. The error, if any, will be in one part of the sentence. The number of that part is the answer. If there is no error, the answer is (5).

53. Most examination results(1)/ seem to indicate that(2)/ girls are superior than boys(3)/ in academic achievement(4)/ No error.(5)

54. It happened so that (1)/ a fast running car run over (2)/ the two boys (3)/ walking along the road (4)/ No error.(5)

55. Though the leader addressed (1)/ the people for a few minutes (2)/ only the important matter which (3)/ he spoke went home with them.(4)/ No error (5).

56. After the death of (1)/ their father the two brothers(2)/ are having their(3)/ hand at the daggers.(4)/ No error.(5)

57. Sohan was much pleased(1)/ to hear the news (2)/ that I had qualified myself(3)/ for semi final.(4)/ No error.(5)

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**58.** Each man, woman, boy and (1)/ girls have to attend (2)/ the meeting for quick (3)/ disposal of matter.(4)/ No error. (5)

**59.** Ram has such a fine memory (1)/that he can recollect (2)/ anything what happened(3)/ many years ago.(4)/ No error.(5)

**60.** Despite of good health (1)/ and regular practice (2)/ the players of India did not win (3)/ a single match in Davis Cup.(4)/No error.(5).

**61.** Vidhan Sabha witnessed uproarious scenes(1)/today when the members (2)/ raised no.confidence(3)/ motion.(4)/ No error.(5).

**62.** The number of people applying (1)/ were so large that (2)/ the school had to stop (3)/ issuing application forms.(4)/ No error.(5)

**Directions (63-72) :** Pick out the most effective words from the given words to fill in the blank to make the sentence complete meaningfully.

**63.** One should always .... one's elders.

- (1) regard (2) respect
- (3) forgive (4) remind
- (5) refuse

**64.** Inspite of Mohan's please the girl did not .... to his request.

- (1) consider (2) favour
- (3) accede (4) look
- (5) free

**65.** Sohan is not .... to this type of environment.

- (1) ready (2) capable
- (3) practicable (4) accustomed
- (5) appropriate

**66.** Ten years .... passed since my uncle died.

- (1) was (2) have
- (3) had (4) were
- (5) will

**67.** Mohan did not approve .... my going for further studies.

- (1) to (2) on
- (3) of (4) plan
- (5) in

**68.** Let us finish the .... of the work tomorrow.

- (1) rest (2) remains
- (3) reminder (4) reserve
- (5) balance

**69.** He would not be angry she did

only for ....

- (1) joke (2) derision
- (3) fun (4) wit
- (5) havoc

**70.** .... I get the salary, I cannot go to the office.

- (1) till (2) unless
- (3) until (4) so long as
- (5) when

**71.** Our teacher told us that the sun ... stationary.

- (1) was (2) could
- (3) had (4) is
- (5) are

**72.** Sita .... a letter yesterday.

- (1) has written (2) wrote
- (3) writes (4) will write
- (5) had written

**Directions (73-82) :** In the following passage there are blanks each of which has been numbered. These numbers are printed below the passage and against each four words are suggested. One of which fits the blank appropriately in the context of the passage. Find out the appropriate word.

Our late **73** on the subject have been expressed with not holds barrel and facts and figures thrown like **74** into the arena of high temples, and highly **75** acts of self-sacrifice in such a manner that truth **76** and none partisanship have fallen on the way side to be kicked and knocked around. Vested interests of all hues have come under a cloud and the **77**. Situation has brought the **78** as well as critics reservation on a **79** course, the consequence and fall out of which can cause doom and destruction of our still **80** social as well as political fabric. That the whole exercise of discussion and **81** has been vitiated by charges and counter charges, is beyond any doubt the crux to the problem and a matter of serious **82**.

- 73.(1) opinion (2) consideration
- (3) request (4) concepts
- (5) respect

- 74.(1) bows (2) arms
- (3) arrows (4) weapons
- (5) bat

- 75.(1) hazardous (2) dangerous
- (3) founding

- (4) explosive
- (5) remove

- 76.(1) maximum
- (2) impartiality
- (3) half

- (4) inequity
- (5) repeat

- 77.(1) deteriorating
- (2) decreasing
- (3) downfall

- (4) low
- (5) self

- 78.(1) appeals
- (2) requests
- (3) advocates

- (4) fights
- (5) refuse

- 79.(1) clash (2) dash
- (3) struggle (4) collision

- (5) suffer

- 80.(1) fragile (2) costly
- (3) extravagant

- (4) learned
- (5) miserable

- 81.(1) delivery (2) deliberation
- (3) explanation

- (4) visualise
- (5) entire

- 82.(1) relate (2) proximate
- (3) concern (4) reform

- (5) agree

**Directions (83-87) :** Rearrange the following parts of a sentence 1, 2, 3, 4 and 5 in proper sequence so as to form a meaningful sentence then answer the questions given below it.

1. programme for all the backward classes

2. real social justice can thus be ensured

3. by vigorous economic

4. conviction and commitment

5. with the same amount of courage

83. Which of the parts should come FIRST ?

- (1) 5 (2) 3
- (3) 2 (4) 1
- (5) 4

84. Which of the parts should come SECOND ?

- (1) 4 (2) 2
- (3) 1 (4) 3
- (5) 5



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**93.** Which of the following statements is false in context of the passage?

(1) recently, seminar was held on vultures by BNHS.

(2) population of vultures has decreased over the last five or six years.

(3) on the seminar in Malaysia, 1996, vultures were placed on 'red list'.

(4) Keoladeo National Park is in Bharatpur.

(5) None of these

**94.** As we find in the passage, there is a known reason relating to the extinction of vultures.

Which of the following is the main reason?

(1) No proper maintenance has been carried out by the national parks in saving the vultures.

(2) They are killed by the Air Port Authority to control the menace of bird-hits.

(3) BNHS did not pursue Air Port Authority to take steps in controlling menace of bird-hits.

(4) Nobody took the case of extinction of vultures seriously as Dr. Prakash, who has been considering the matter since 1997.

(5) Only 1 and 4

**95.** Dr. Vijayan undertook a quick four-day survey of several regions to—

(1) find out vultures among the regions of Delhi, Agra and Bharatpur.

(2) get information relating to the presence of vultures in the regions of Delhi, Agra, Bharatpur and Gir forests.

(3) trace out the factors related to the extinction of vultures in India.

(4) collect source as to why the endangered species have reduced from Delhi, Agra and Bharatpur.

(5) None of these

**96.** The passage describes—

(1) extinction of vultures from India.

(2) scientists lack of interest in saving vultures.

(3) quick reduce of vultures from national parks and sanctuaries.

(4) less attention of the scientists as well as environmentalists in saving the vultures.

(5) All of these

**Directions (96-98) :** Choose the word which is most nearly the same in

meaning as the word or group of words given in bold as used in the passage.

**97. Extinct**

- (1) vanished (2) die-out
- (3) quenched (4) invisible
- (5) degraded

**98. Consensus**

- (1) unanimity (2) irrationality
- (3) agreement (4) judgement
- (5) quarrel

**99. Mooted**

- (1) debated
- (2) questioned
- (3) discussed
- (4) assembled
- (5) directed

**Directions (100-104) :** Choose the word which is most nearly the opposite in meaning as the word or group of words given in bold as used in the passage.

**100. Alarming**

- (1) unnoticed
- (2) soothing
- (3) pleasant
- (4) calm
- (5) endangering

**101. Seriously**

- (1) carelessly (2) caution
- (3) anxiety (4) idle
- (5) dexterity

**102. Reduction**

- (1) increment (2) profit
- (3) gain (4) benefit
- (5) deduction

**103. Sound**

- (1) suppress (2) steal
- (3) summon (4) suggest
- (5) secret

**104. Confusion**

- (1) severity (2) sobriety
- (3) clarity (4) sincerity
- (5) audacity

**TEST-III  
MATHEMATICS**

**Directions (105-131) :** What should come in place of question mark (?) in the following questions?

$$105. 0.07 \times 0.009 = ?$$

- (1) 0.00063 (2) 0.630
- (3) 0.006300 (4) 0.000063
- (5) None of these

$$106. ? + 2.4 = 660$$

- (1) 1504 (2) 1478
- (3) 1684 (4) 1564
- (5) None of these

$$107. ? \div \sqrt{7} + 161 = 203$$

- (1) 107 (2)  $54\sqrt{7}$
- (3)  $42\sqrt{7}$  (4)  $44\sqrt{7}$
- (5) None of these

$$108. 8009 + 7913 + 4670 = ?$$

- (1) 20592 (2) 26092
- (3) 21182 (4) 18662
- (5) None of these

$$109. 9864 - ? = 8134 - 3124$$

- (1) 5844 (2) 4854
- (3) 3894 (4) 5174
- (5) None of these

$$110. 2630 + 24632 - ? = 19306$$

- (1) 8184 (2) 7956
- (3) 8626 (4) 8124
- (5) None of these

$$111. 2 \frac{1}{5} \text{ of } 2575 \div 40\% \text{ of } 160 = ?$$

- (1) 67.33 (2) 109.42
- (3) 86.84 (4) 91.33
- (5) None of these

$$112. \frac{165 + 445 \times 4}{25} = ?$$

- (1) 87.60 (2) 77.80
- (3) 76.88 (4) 62.40
- (5) None of these

$$113. 1.2 \times 1.2 = 144 \div ?$$

- (1) 100 (2) 200
- (3) 400 (4) 1000
- (5) None of these

$$114. 15.4238 - ? = 667.316 - 586.987$$

- (1) 64.059 (2) 72.124
- (3) 6.632 (4) 0.00
- (5) None of these

$$115. 1827 \div 101.5 = ?$$

- (1) 37.345 (2) 21.172
- (3) 18 (4) 21.024
- (5) None of these

$$116. 103.2 \div 0.4 \times 0.12 = ?$$

- (1) 28.08 (2) 38.40
- (3) 36.66 (4) 30.96
- (5) None of these

$$117. 15\% \text{ of } 550 + 25\% \text{ of } 840 = ?$$

- (1) 292.5 (2) 390  
 (3) 280 (4) 276.5  
 (5) None of these  
 118.  $3606 + 5148 = 9463 + ?$   
 (1) -76 (2) -123  
 (3) -710 (4) -612  
 (5) None of these

$$119. \frac{3}{7} + 6\frac{1}{4} - 2\frac{3}{4} = ?$$

- (1)  $6\frac{3}{14}$  (2)  $6\frac{9}{14}$   
 (3)  $5\frac{1}{7}$  (4)  $7\frac{1}{28}$   
 (5) None of these

$$120. 16\frac{1}{3} + 3\frac{1}{5} + 9\frac{1}{2} = ?$$

- (1)  $29\frac{1}{30}$  (2)  $28\frac{1}{15}$   
 (3)  $29\frac{1}{60}$  (4)  $30\frac{1}{5}$

$$121. 36.137 + 27.3257 = ?$$

- (1) 59.7627 (2) 61.6627  
 (3) 73.4427 (4) 63.4627

(5) None of these

$$122. 10 + 0.18 + 6 \div 0.3 \times 0.4 = ?$$

- (1) 11.818 (2) 18.18  
 (3) 18.018 (4) 180.108

(5) None of these.

$$123. \frac{7}{\sqrt{?}} = \frac{49}{35}$$

- (1) 15 (2) 25  
 (3) 225 (4) 35

(5) None of these

$$124. \sqrt{?} + (11)^2 = 144$$

- (1) 676 (2) 576  
 (3) 529 (4) 484

(5) None of these

$$125. \frac{2}{3} \text{ of } 930 + \% \text{ of } 1600 = 1020$$

- (1) 25 (2) 50  
 (3) 75 (4) 125

(5) None of these

$$126. 616 + 2465 - ? = 763$$

- (1) 1823 (2) 2318  
 (3) 2384 (4) 2266  
 (5) None of these

$$127. \frac{440 + 12 \times 70}{25 + 55} = ?$$

- (1) 18 (2) 24  
 (3) 16 (4) 22  
 (5) None of these

$$128. \frac{24 \times 5 - 3 \times 12}{72 + 4 - 2 \times 8} = ?$$

- (1) 42 (2) 52  
 (3) 32 (4) 44  
 (5) None of these

$$129. 460 + 3960 \div 24 = ?$$

- (1) 656 (2) 625  
 (3) 750 (4) 575  
 (5) None of these

$$130. 3021 + 8004 - 3012 = ?$$

- (1) 8013 (2) 8003  
 (3) 8113 (4) 7013  
 (5) None of these

$$131. \frac{(2 \times 17 - 2 \times 11) \times 4}{7 + 3} = ?$$

- (1) 4.8 (2) 48  
 (3) 4.08 (4) 480  
 (5) None of these

132. A consignment of apples for export consists of 20 cartons, each containing 5 dozen apples. If only 50 apples are kept in each carton, then how many additional cartons will be required?

- (1) 4 (2) 16  
 (3) 24 (4) 36  
 (5) None of these

133. In a company 40% of the employees are 10th pass, 50% of the remaining are graduates and the remaining 180 are postgraduates. How many employees are graduates?

- (1) 160 (2) 190  
 (3) 300 (4) 380  
 (5) None of these

134. By selling a photostate machine for Rs. 22600, a person gains 13% profit. What was his gain in rupees?

- (1) Rs. 550 (2) Rs. 2500  
 (3) Rs. 2938 (4) Rs. 2600  
 (5) None of these

135. Travelling at uniform speed a Hero Honda covers a distance of 12

km in 10 minutes. What is the speed of the Honda in km/hr.?

- (1) 36 (2) 60  
 (3) 120 (4) 59  
 (5) None of these

136. Which of the following digits will be replaced all the \* marks in the following expression?

$$6^* + ^*5 + 4^* = 189$$

(1) 134 (2) 13  
 (3) 8 (4) 2  
 (5) None of these

137. The average of  $x \times y$  and  $y$  is equal to  $x$ , then  $x$  is equal to

$$(1) \frac{x+y}{2} (2) \frac{y}{2-y}$$

(3)  $\frac{x}{y-2}$  (4)  $y^2 + y$   
 (5)  $2 + y$

138. The sum of three consecutive multiples of 3 is 90. What is the largest of the three numbers?

- (1) 33 (2) 10  
 (3) 27 (4) 36  
 (5) None of these

139. Distance between two villages A and B is 165km. A scooter rider starts from A for B at 7 AM at a speed of 30 km/hr. At the same time another scooter rider starts from B towards A at a speed of 25 km/hr. Find when they will cross each other.

- (1) 9.30 AM (2) 10.40 AM  
 (3) 10.00 AM  
 (4) Data inadequate  
 (5) None of these

140. The ratio  $a : b$  is equal to  $2 : 3$ . The sum of  $a$  and  $b$  is 4. What is the ratio  $(a+b) : (b-1) = ?$

- (1) 3 : 2 (2) 5 : 1  
 (3) 4 : 7 (4) 3 : 9  
 (5) None of these

141. The area of the surface of a sphere is  $114\pi$  sq.m. Find out its volume in cubic cm.

- (1)  $72\pi$  (2)  $144\pi$   
 (3)  $288\pi$  (4)  $476\pi$   
 (5) None of these

142. A tank contains 40 litres mixture of milk and water. The ratio of milk and water is 3 : 1. How many litres of water should be added in the tank

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so that the ratio of milk and water becomes  $1 : 3$ ?

- (1) 70                          (2) 80  
(3) 50                          (4) 140  
(5) None of these

143. The average of 2, 7, 6 and x is 5. The average of 18, 1, 6, x and y is 10. What is the value of y?



144. A box contains 54 rupees in the form of coins of 50 paise and 25 paise. The number of 50 paise coins is one-sixth that of 25 paise coins. What is the total number of coins in the box?

- (1) 189
  - (2) 27
  - (3) 182
  - (4) Data inadequate
  - (5) None of these

**145.** If 37% of a number is 203.5, what will be 50% of the number?

- (1) 101.75
  - (2) 87.2
  - (3) 102.93
  - (4) 275
  - (5) None of the above

**146.** How many pieces of 0.65 metre long rod can be made out of a rod 19.5 metres long?

- (1) 3 ..
  - (2) 20
  - (3) 30
  - (4) Data inadequate
  - (5) None of these

147. In a factory 60% of the employees are females. Among them 25% are matriculates and the remaining are graduates. Among the males 20% are matriculates and the remaining are graduates. If the total number of male employees in the factory is 600, how many graduates are there in the factory?

- (1) 1630
  - (2) 780
  - (3) 1155
  - (4) Data inadequate
  - (5) None of these

**148.** Sweta and Divya can independently complete a piece of work in 30 minutes and 60 minutes respectively. If they work together how much time will they take to complete that piece of work?

- (1) 25 minutes
  - (2) 30 minutes
  - (3) 45 minutes
  - (4) Data inadequate
  - (5) None of these

**149.** The length of a rectangular plot is reduced to 6m from 8m and breadth is reduced to 4m from 6m. What will be the ratio of the new area to the original area?

- (1) 1 : 2      (2) 5 : 7  
 (3) 7 : 12      .  
 (4) 8 : 6  
 (5) None of these

**150.** If two tables and three chairs cost Rs. 2315 and two chairs and three tables cost Rs. 2910, what is the cost of four chairs?

- (1) Rs. 900  
(2) Rs. 820  
(3) Rs. 1100  
(4) Rs. 1353  
(5)-None of these

151. Raman read  $\frac{5}{8}$  th of a book in

one day and  $\frac{1}{5}$  th of the remaining in another day. If there were 30 pages left over, what is the total number of pages in the book?

- (1) 360
  - (2) 1200
  - (3) 120
  - (4) 240
  - (5) None of these

152. A man spends  $\frac{1}{4}$  th part of his income on food,  $\frac{1}{5}$  th of it on house rent and the remaining which is Rs. 231 for other purposes. What is his

- (1) Ba 1420

- (2) Rs. 360
  - (3) Rs. 280
  - (4) Data Inadequate
  - (5) None of these

**153.** Ram can row 5 km per hour in still water. When this man rows in a river flowing at 1.5 km/hr, it takes him one hour to row to a place and back. How many km away is the place?

- (1) 2.285  
(2) 2.395  
(3) 2.275  
(4) 2.285  
(5) 2.265

**154.** The age of a man is three times the sum of the ages of his two children. Five years hence, his age will be double the sum of their ages. What is his present age?

- (1) 40 years
  - (2) 45 years
  - (3) 50 years
  - (4) Data inadequate
  - (5) None of these

**155.** Santosh started a business investing Rs. 42500. After 5 months Akash joined him investing Rs. 70,000. If at the year's end they make a profit of Rs. 20000 how much more will be the share of Santosh than Akash's share in that profit?

- (1) Rs. 400
  - (2) Rs. 10200
  - (3) Rs. 900
  - (4) Rs. 9800
  - (5) None of these

**156.** Which of the following has the fractions in descending order?

- (1)  $\frac{14}{15}, \frac{13}{20}, \frac{12}{19}$

(2)  $\frac{12}{19}, \frac{14}{15}, \frac{13}{20}$

(3)  $\frac{13}{20}, \frac{12}{19}, \frac{14}{15}$

(4)  $\frac{14}{15}, \frac{12}{19}, \frac{13}{20}$

(5) None of these

**TEST - IV**  
**CLERICAL APTITUDE**

**Directions (157-193) :** In each question below a combination of the name and address is given in the first column on the left followed by four such combinations one each under the columns (1), (2), (3) and (4). You have to find out the combination which is exactly the same as the combination in the first column. The number of that column which contains the combination is the answer. If all the combinations are different the answer is '5'.

	(1)	(2)	(3)	(4)	(5)
157. Johnson & Co. C-16 Connaught place New Delhi-110001 Tel : 3321592	Johnson & Co. C-18 Connaught place New Delhi-110001 Tel : 3321592	Johnson & Co. C-61 Connaught place New Delhi-110001 Tel : 3321592	Johnson & Co. C-16 Connaught place New Delhi-110001 Tel : 3321592	Johnson & Co. C-16 Connaught place New Delhi-110001 Tel : 3321592	None
158. Lee Picasso II E-2, Central Market, Lajpat Nagar New Delhi-110024 Ph. : 6838711	Lee Picasso II E-3, Central Market, Lajpat Nagar New Delhi-110024 Ph. : 6838711	Lee Picasso II E-2, Central Market, Lajpat Nagar New Delhi-110024 Ph. : 6838711	Lee Picasso II E-2, Central Market, Lajpat Nagar New Delhi-110024 Ph. : 6838711	Lee Picasso II E-2, Central Market, Lajpat Nagar New Delhi-110024 Ph. : 6838711	None
159. Calyx Herbal B-5/314, Sec.-3 Rohini, Delhi-85 Ph.: 7160360	Calyx Herbal B-5/314, Sec.-6 Rohini, Delhi-85 Ph.: 7160360	Calyx Herbal B-5/314, Sec.-3 Rohini, Delhi-85 Ph.: 7160360	Calyx Herbal B-5/314, Sec.-3 Rohini, Delhi-85 Ph.: 7160360	Calyx Herbal B-5/314, Sec.-3 Rohini, Delhi-85 Ph.: 7160360	None
160. Glorious Fashion Juhu Beach-II Mumbai-400036 Tel. 4455417	Glorious Fashion Juhu Beach-II Mumbai-400036 Tel. 4455417	Glorious Fashion Juhu Beach-I Mumbai-400036 Tel. 4455417	Glorious Fashion Juhu Beach-II Mumbai-400036 Tel. 4455417	Glorious Fashion Juhu Beach-II Mumbai-400036 Tel. 4455417	None
161. Mary Supriya 3A/3 Asaf Ali Rd. Faridabad-24 Ph. : 91-414813	Mary Supriya 3A/3 Asaf Ali Rd. Faridabad-24 Ph. : 91-414813	Mary Supriya 3A/3 Asaf Ali Rd. Faridabad-24 Ph. : 91-414813	Mary Supriya 3A/3 Asaf Ali Rd. Faridabad-24 Ph. : 91-414813	Mary Supriya 3A/3 Asaf Ali Rd. Faridabad-24 Ph. : 91-414813	None
162. Eros Apartment 56, Nehru Place New Delhi-19 Tel. 6404190	Eros Apartment 56, Nehru Palace New Delhi-19 Tel. 6404190	Eros Apartment 56, Nehru Place New Delhi-91 Tel. 6404190	Eros Apartments 56, Nehru Place New Delhi-19 Tel. 6404190	Eros Apartment 56, Nehru Place New Delhi-19 Tel. 6404190	None
163. Neuron Marketing Pvt. Limited Bothra Road Calcutta-56 Tel. 2804986	Neurons Marketing Pvt. Limited Bothra Road Calcutta-56 Tel. 2804986	None			
164. Kelson Syntel 370/B GIDC Makarpura Vadodara, Gujarat Ph. : 652990	Kelson Syntel 370/B GIDC Makarpura Vadodara, Gujarat Ph. : 652990	Kelson Syntel 370/B GIDC Makarpura Vadodara, Gujarat Ph. : 652990	Kelson Syntel 370/B GIDC Makarpura Vadodara, Gujarat Ph. : 652990	Kelson Syntel 370/B GIDC Makarpura Vadodara, Gujarat Ph. : 652990	None
165. Saurabh Industries Khadgaon Road Nagpur-23 Tel. 07104-34272	Saurabh Industries Khadgaon Road Nagpur-23 Tel. 07104-34272	Saurabh Industries Khadgaon Road Nagpur-32 Tel. 07104-34272	Saurabh Industries Khadgaon Road Nagpur-23 Tel. 07104-34272	Saurabh Industries Khadgaon Road Nagpur-23 Tel. 07104-34272	None
166. Radiant Tech. P.O. Box.-36 Nizwa, Sultanate of Oman-611 Fax. 00968-410905	None				

**TARGET SET FOR BANK CLERICAL EXAM.**

167. Selections Ltd. 1, Sambava Chambers Sir P.M. Road, Fort Mumbai-400001 Tel. 2664493	Selections Ltd. 1, Sambava Chambers Sir P.M. Road, Fort Mumbai-400001 Tel. 2664493	Selections Ltd. 1, Sambava Chambers Sir P.M. Road, Fort Mumbai-400001 Tel. 2664493	Selections Ltd. 2, Sambava Chambers Sir P.M. Road, Fort Mumbai-400001 Tel. 2664493	Selections Ltd. 1, Sambava Chambers Sir P.M. Road, Fort Mumbai-400001 Tel. 2664493	None
168. Vicinitex India M-13, Kailash Colony New Delhi-48 Fax. 6237051	Vicinitex India M-13, Kailash Colony New Delhi-48 Fax. 6237051	Vicinitex India M-13, Kailash Colony New Delhi-48 Fax. 6237051	Vicinitex India M-13, Kailash Colony New Delhi-48 Fax. 6237051	Vicinitex India M-13, Kailash Colony New Delhi-48 Fax. 6237051	None
169. DSQ Software 14, Kaushalya Park Hauz Khas New Delhi-110016 Fax. 011-6859288	DSQ Software 41, Kaushalya Park Hauz Khas New Delhi-110016 Fax. 011-6859288	DSQ Software 14, Kaushalya Park Hauz Khas New Delhi-110016 Fax. 011-6859288	DSQ Software 14, Kaushalya Park Hauz Khas New Delhi-110016 Fax. 011-6859288	DSQ Software 14, Kaushalya Park Hauz Khas New Delhi-110016 Fax. 011-6859288	None
170. Tech Span India Private Limited A-35, Sector-16 Noida-201301 Tel. 512710	Tech Span India Private Limited A-35, Sector-16 Noida-201301 Tel. 512710	Tech Span India Private Limited A-35, Sector-16 Noida-201301 Tel. 512710	Tech Span India Private Limited A-35, Sector-16 Noida-201301 Tel. 512710	Tech Span India Private Limited A-35, Sector-16 Noida-201301 Tel. 512710	None
171. Upholstry Foreman 117, E Wing, Floral Deck Plaza, Near SEEPZ, MIDC Mumbai-400093	Upholstry Foreman 117, E Wing, Floral Deck Plaza, Near SEEPZ, MIDC Mumbai-400093	Upholstry Foreman 117, E Wing, Floral Deck Plaza, Near SEEPZ, MIDC Mumbai-400093	Upholstry Foreman 117, E Wing, Floral Deck Plaza, Near SEEPZ, MIDC Mumbai-400093	Upholsty Foreman 117, E Wing, Floral Deck Plaza, Near SEEPZ, MIDC Mumbai-400093	None
172. The Chairman Sharjah College P.O. Box-5398 Sharjah, UAE	The Chairman Sharjah Collage P.O. Box-5398 Sharjah, UAE	The Chairman Sharjah College P.O. Box-5398 Sharjah, UAE	The Chairman Sharjah College P.O. Box-5398 Sharjah, UAE	The Chairman Sharjah College P.O. Box-5398 Sharjah, UAE	None
173. Institute of Tech. Studies No. 7, Kirimandala Colombo-5, Sri Lanka	Institute of Tech. Studies No. 7, Kirimandala Colombo-5, Sri Lanka	Institute of Tech. Studies No. 7, Kirimandala Colombo-5, Sri Lanka	Institute of Tech. Studies No. 9, Kirimandala Colombo-5, Sri Lanka	Institute of Tech. Studies No. 9, Kirimandala Colombo-5, Sri Lanka	None
174. Infor Gain India B-15, Sector-18 Gautam Buddh Nagar Uttar Pradesh Ph. 011-8-583745	Infor Gain India B-15, Sector-18 Gautam Buddh Nagar Uttar Pradesh Ph. 011-8-583745	Infor Gain India B-15, Sector-18 Gautam Buddh Nagar Uttar Pradesh Ph. 011-8-583745	Infor Gain India B-15, Sector-18 Gautam Buddh Nagar Uttar Pradesh Ph. 011-8-583745	Infor Gain India B-15, Sector-18 Gautam Buddh Nagar Uttar Pradesh Ph. 011-8-583745	None
175. NRI Services Pvt. Limited 22 PS Sivaswamy Salai Mylapore, Chennai Tamil Nadu-4 Email-vee@vsnl.com	NRI Services Pvt. Limited 22 PS Sivaswaamy Salai Mylapore, Chennai Tamil Nadu-4 Email-vee@vsnl.com	NRI Services Pvt. Limited 22 PS Sivaswamy Salai Mylapore, Chennai Tamil Nadu-4 Email-vee@vsnl.com	NRI Service Pvt. Limited 22 PS Sivaswamy Salai Mylapore, Chennai Tamil Nadu-4 Email-vee@vsnl.com	NRI Services Pvt. Limited 22 PS Sivaswamy Salai Mylapore, Chennai Tamil Nadu-4 Email-vee@vsnl.com	None
176. Corbba Computers 77/2, Jacob Bldg. LJ Raod, Mahim Mumbai-400016	Corbba Computers 77/2, Jacob Bldg. LJ Raod, Mahim Mumbai-400016	Corbba Computers 77/2, Jacob Bldg. LJ Raod, Mahim Mumbai-400016	Corbba Computers 77/2, Jacob Bldg. LJ Raod, Mahim Mumbai-400016	Corbba Computer 77/2, Jacob Bldg. LJ Raod, Mahim Mumbai-400016	None
177. Neha Bhargava Sales Executive Ayur Cosmetics Bangalore-38	Neha Bhargava Sales Executiv Ayur Cosmetics Bangalore-38	Neha Bhargava Sales Executive Ayur Cosmetic Bangalore-38	Neha Bhargava Sales Executive Ayur Cosmetics Bangalore-38	Neha Bhargava Sales Executive Ayur Cosmetics Bangalore-38	None

**TARGET SET FOR BANK CLERICAL EXAM**

176. Pearl Industries Verilog/VHDL Silicon Valley Fax. 91-5688670	None				
178. Cyber Space Infosys Limited MIDC, Andheri (E) Mumbai-400093	None				
180. Shahi Export House F-88, Okhla, Phase-I New Delhi-110020 Tel. 6467125	None				
181. Mr. K.M. Gopal Executive Director 14-D, Basant Lok New Delhi-110057	None				
182. Mr. Abhijit Kar Sr. Manager Tel. 6147909 Email : omcvv@.com	None				
183. Methodex Ltd. B-1/F-1, Mohan Cooperative Industrial Estate, New Delhi-44	Methodex Ltd. B-1/F-1, Mohan Cooperative Industrial Estate, New Delhi-44	Methodex Ltd. B-1/F-2, Mohan Cooperative Industrial Estate, New Delhi-44	Methodex Ltd. B-1/F-1, Mohan Cooperative Industrial Estate, New Delhi-44	Methodex Ltd. B-1/F-1, Mohan Cooperative Industrial Estate, New Delhi-44	None
184. Novo Nordisk Pharma India Ltd. 14/2 Brunton Road Bangalore-560025	None				
185. FM Consultants India (P) Limited 11/3 Amaltas Complex Bhopal-462039	FM Consultant India (P) Limited 11/3 Amaltas Complex Bhopal-462039	FM Consultants India (P) Limited 11/3 Amaltas Complex Bhopal-462039	FM Consultants India (P) Limited 11/3 Amaltas Complex Bhopal-462039	FM Consultants India (P) Limited 11/3 Amaltas Complex Bhopal-462039	None
186. Hell Mineral Water B-2/114, Safdarjung Enclave, New Delhi-29 Tel. 5356429	Hell Mineral Waters B-2/114, Safdarjung Enclave, New Delhi-29 Tel. 5356429	None			
187. Mr. T. Sundaram MRF Limited 124, Greams Road Chennai-600006	None				
188. Senior Manager ABC Consultants 407 Barton Centre Bangalore-560001	Senior Manager ABC Consultant 407 Barton Centre Bangalore-560001	Senior Manager ABC Consultants 407 Barton Centre Bangalore-560001	Senior Manager ABC Consultants 407 Barton Centre Bangalore-560001	Senior Manager ABC Consultants 407 Barton Centre Bangalore-560001	None
189. Central Drug Research Institute Chattar Manzil Mahatma Gandhi Marg Lucknow-226001	None				

**TARGET SET FOR BANK CLERICAL EXAM. I**

190. Mr. Sanjeev Nangia Lanbit India (P) Ltd. E-577, Greater Kailash New Delhi-110048 Tel. 6284085	Mr. Sanjeev Nangia Lanbit India (B) Ltd. E-577, Greater Kailash New Delhi-110048 Tel. 6284085	Mr. Sanjeev Nangia Lanbit India (P) Ltd. E-577, Greater Kailash New Delhi-110048 Tel. 6284085	Mr. Sanjeev Nangia Lanbit India (P) Ltd. E-577, Greater Kailash New Delhi-110048 Tel. 6284085	Mr. Sanjeev Nangia Lanbit India (P) Ltd. E-577, Greater Kailash New Delhi-110048 Tel. 6284085
191. Managing Director Kopran Labs (P) 1076, Dr. E. Moses (Rd.) Worli, Mumbai-18 Email: kopmed @.com	Managing Director Kopran Labs (P) 1076, Dr. F. Moses (Rd.) Worli, Mumbai-18 Email: kopmed @.com	Managing Director Kopran Labs (P) 1076, Dr. E. Moses (Rd.) Worli, Mumbai-18 Email: kopmed @.com	Managing Director Kopran Labs (P) 1076, Dr. E. Moses (Rd.) Worli, Mumbai-18 Email: kopmed @.com	Managing Director Kopran Labs (P) 1076, Dr. E. Moses (Rd.) Worli, Mumbai-18 Email: kopmed @.com
192. Marketing Manager BE Electronics Email : belec @vsnl. com Tel. 4312651	Marketing Manager BE Electronics Email : belec @vsnl. com Tel. 4312651			
193. Sumitra Tandon F-37, Gole Mkt. New Delhi-110001 Ph. : 3746095	Sumitra Tandon F-37, Gole Mkt. New Delhi-110001 Ph. : 3746095	Sumitra Tandon F-37, Gole Mkt. New Delhi-11001 Ph. : 3746095	Sumitra Tandon F-37, Gole Mkt. New Delhi-11001 Ph. : 3746095	Sumitra Tandon F-37, Gole Mkt. New Delhi-11001 Ph. : 3746095

**Directions (194-208) :** Read the following table carefully and answer the questions given below it :

**PRODUCTION OF OIL SEEDS IN MILLION TONNES OVER THE YEARS.**

OIL SEEDS	YEARS				
	1994-95	1995-96	1996-97	1997-98	1998-99
Groundnut	14.12	7.81	9.12	10.08	11.09
Castorseed	0.85	0.78	2.00	1.98	2.04
Sesamum	0.59	0.90	0.98	1.01	1.06
Mustard	5.76	6.07	6.10	5.89	5.68
Linseed	0.32	0.31	0.30	0.29	0.28
Sunflower	1.22	1.32	1.38	1.24	1.46
Soyabean	3.93	4.99	5.11	6.12	4.89
Safflower	0.42	0.40	0.40	0.37	0.45

194. Which of the following oilseeds did show continuous increase in production from 1994-95 to 1998-99?

- (1) Linseed
- (2) Mustard
- (3) Sesamum
- (4) Sunflower
- (5) None of these

195. Which of the following oilseeds did show uniform decline in production over the given years?

- (1) Linseed
- (2) Safflower
- (3) Mustard
- (4) Soyabean
- (5) None of these

196. Which of the following

oilseeds did register maximum production over the given years?

- (1) Sunflower
- (2) Mustard
- (3) Safflower
- (4) Groundnut
- (5) None of these

197. The production of which of the following oilseeds was 6.12 million tonnes in the year 1997-98?

- (1) Safflower
- (2) Soyabean
- (3) Mustard
- (4) Sunflower
- (5) None of these

198. The production of which of the following oilseeds was the same in two consecutive years?

Mr. Sanjeev Nangia  
Lanbit India (P) Ltd.  
E-577, Greater  
Kailash  
New Delhi-110048  
Tel. 6284085

Managing Director  
Kopran Labs (P)  
1076, Dr. E.  
Moses (Rd.)  
Worli, Mumbai-18  
Email: kopmed  
@.com

Marketing Manager  
BE Electronics  
Email : belec  
@vsnl. com  
Tel. 4312651

Sumitra Tandon  
F-37, Gole Mkt.  
New Delhi-11001  
Ph. : 3746096

- (1) Safflower
- (2) Castorseed
- (3) Mustard
- (4) Groundnut
- (5) None of these

199. The production of which of the following oilseeds was the least in the year 1995-96?

- (1) Sesamum
- (2) Linseed
- (3) Castorseed
- (4) Safflower
- (5) None of these

200. Which of the following pairs of data did show the production of Linseed and Safflower respectively in the year 1996-97 in million tonnes.?

- (1) 0.31, 0.40
- (2) 0.29, 0.40
- (3) 0.30, 0.40
- (4) 0.29, 0.37
- (5) None of these

201. The production of which of the following oilseeds was exactly 4.89 million tonnes in the year 1998-99?

- (1) Soyabean
- (2) Mustard
- (3) Linseed
- (4) Safflower
- (5) None of these

**202.** The production of Castorseed and Soyabean respectively in the year 1998-99 in million tonnes were :

- (1) 1.98, 4.89
- (2) 2.04, 4.89
- (3) 2.04, 6.12
- (4) 2.04, 1.46
- (5) None of these

**203.** The production of Sunflower in the year 1997-98 in million tonnes was

- (1) 1.32      (2) 1.46
- (3) 1.38      (4) 1.24
- (5) None of these

**204.** The production of Groundnut in the year 1996-97 in million tonnes was

- (1) 10.08      (2) 9.12
- (3) 11.09      (4) 7.81
- (5) None of these

**205.** The difference in production of Mustard was how many million tonnes between the years 1997-98 and 1998-99?

- (1) 0.29      (2) 0.24
- (3) 0.22      (4) 0.21
- (5) None of these

**206.** In how many years the production of Mustard was more than 6.0 million tonnes?

- (1) Two      (2) Three
- (3) One      (4) Nil
- (5) None of these

**207.** In how many years the production of Castorseed was less than 1.0 million tonne?

- (1) One      (2) Two
- (3) Three      (4) Nil
- (5) None of these

**208.** In the year 1994-95 how many items did show production less than 1.0 million tonne?

- (1) Three      (2) Four
- (3) Six      (4) Five
- (5) None of these

#### **SHORT ANSWERS**

- |         |         |         |         |
|---------|---------|---------|---------|
| 1. (2)  | 2. (4)  | 3. (1)  | 4. (3)  |
| 5. (3)  | 6. (1)  | 7. (4)  | 8. (2)  |
| 9. (3)  | 10. (1) | 11. (3) | 12. (1) |
| 13. (4) | 14. (3) | 15. (3) | 16. (4) |
| 17. (3) | 18. (1) | 19. (2) | 20. (2) |
| 21. (4) | 22. (3) | 23. (4) | 24. (1) |
| 25. (5) | 26. (2) | 27. (3) | 28. (2) |

- |          |          |          |          |
|----------|----------|----------|----------|
| 29. (1)  | 30. (4)  | 31. (1)  | 32. (5)  |
| 33. (5)  | 34. (3)  | 35. (5)  | 36. (2)  |
| 37. (3)  | 38. (4)  | 39. (2)  | 40. (4)  |
| 37. (3)  | 38. (4)  | 39. (2)  | 40. (4)  |
| 41. (1)  | 42. (4)  | 43. (2)  | 44. (4)  |
| 45. (2)  | 46. (3)  | 47. (5)  | 48. (5)  |
| 49. (3)  | 50. (4)  | 51. (5)  | 52. (1)  |
| 53. (3)  | 54. (2)  | 55. (3)  | 56. (4)  |
| 57. (1)  | 58. (2)  | 59. (3)  | 60. (1)  |
| 61. (1)  | 62. (2)  | 63. (2)  | 64. (3)  |
| 65. (4)  | 66. (2)  | 67. (3)  | 68. (1)  |
| 69. (3)  | 70. (2)  | 71. (4)  | 72. (2)  |
| 73. (1)  | 74. (3)  | 75. (4)  | 76. (2)  |
| 77. (1)  | 78. (3)  | 79. (4)  | 80. (1)  |
| 81. (2)  | 82. (2)  | 83. (3)  | 84. (3)  |
| 85. (4)  | 86. (1)  | 87. (1)  | 88. (1)  |
| 89. (1)  | 90. (2)  | 91. (4)  | 92. (1)  |
| 93. (3)  | 94. (5)  | 95. (4)  | 96. (5)  |
| 97. (2)  | 98. (1)  | 99. (3)  | 100. (2) |
| 101. (1) | 102. (1) | 103. (2) | 104. (4) |
| 105. (1) | 106. (5) | 107. (3) | 108. (1) |
| 109. (2) | 110. (2) | 111. (5) | 112. (2) |
| 113. (1) | 114. (5) | 115. (3) | 116. (4) |
| 117. (1) | 118. (5) | 119. (2) | 120. (1) |
| 121. (4) | 122. (2) | 123. (2) | 124. (3) |
| 125. (1) | 126. (2) | 127. (3) | 128. (1) |
| 129. (2) | 130. (1) | 131. (1) | 132. (1) |
| 133. (5) | 134. (4) | 135. (5) | 136. (5) |
| 137. (2) | 138. (4) | 139. (3) | 140. (2) |
| 141. (3) | 142. (2) | 143. (2) | 144. (1) |
| 145. (4) | 146. (3) | 147. (3) | 148. (5) |
| 149. (1) | 150. (1) | 151. (4) | 152. (1) |
| 153. (3) | 154. (2) | 155. (4) | 156. (5) |
| 157. (3) | 158. (2) | 159. (3) | 160. (3) |
| 161. (2) | 162. (4) | 163. (1) | 164. (3) |
| 165. (4) | 166. (1) | 167. (2) | 168. (4) |
| 169. (2) | 170. (3) | 171. (1) | 172. (2) |
| 173. (1) | 174. (4) | 175. (2) | 176. (3) |
| 177. (4) | 178. (2) | 179. (1) | 180. (1) |
| 181. (2) | 182. (3) | 183. (4) | 184. (3) |
| 185. (3) | 186. (1) | 187. (2) | 188. (2) |
| 189. (2) | 190. (4) | 191. (3) | 192. (4) |
| 193. (1) | 194. (3) | 195. (1) | 196. (4) |
| 197. (2) | 198. (1) | 199. (5) | 200. (3) |
| 201. (1) | 202. (2) | 203. (4) | 204. (2) |
| 205. (4) | 206. (1) | 207. (2) | 208. (2) |

#### **ANSWERS WITH EXPLANATION**

##### **REASONING**

**(1-5) :** (i) There are altogether 28 elements.

(ii) There are 15 letters.

(iii) There are 6 digits.

(iv) There are 7 symbols.

(v) The middle pair of elements is TD.

• 1. (2) Tenth element from right

→ Q

Ninth element from left

→ J

Remaining elements

between J & Q

• S 3 £ T DL 2 H

↓

Middle element

2.(4) Required element

= 11 + 5 = 16th from right in the new sequence.

or

29 - 16 = 13th from left in the new sequence.

First and second elements interchange positions and so the 13th and 14th elements will also interchange position. Therefore, required element will be 14th element from left.

The middle pair of elements is T D

↓

14th from left

3.(1) Trick :

Required element

= 9th to right of H in the original sequence

.... 2 H Q 8 • P ♦ A # K [6] N

4.(3)

J  $\xrightarrow{+2}$  S  $\xrightarrow{+2}$  £  $\xrightarrow{+2}$  D

P  $\xrightarrow{-3}$  Q  $\xrightarrow{-3}$  L  $\xrightarrow{-3}$  E

D  $\xrightarrow{+1}$  L  $\xrightarrow{+2}$  H  $\xrightarrow{+3}$  B

5.(3)

R  $\xrightarrow{+3}$   $\uparrow$   $\xrightarrow{+2}$  •

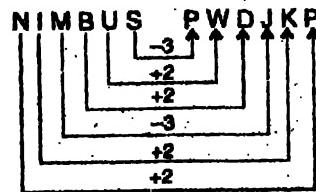
2  $\xrightarrow{+3}$   $\uparrow$   $\xrightarrow{+2}$  P

S  $\xrightarrow{+4}$  D  $\xrightarrow{+3}$  H

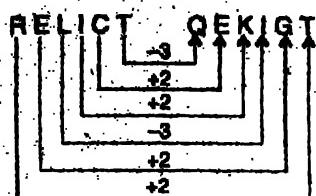
C  $\xrightarrow{+3}$  M  $\xrightarrow{+2}$  E

P  $\xrightarrow{+3}$  #  $\xrightarrow{+2}$  6

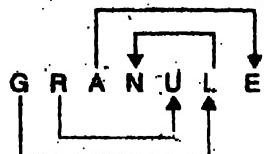
6.(1)



Similarly,



7.(4)



Thus, there are four such pairs of letters.

8.(2) Alphabetical order:

A C I L [M O] R S U U

↓  
Middle pair

9.(3)

H	E	X	A	G	O	N
↓	↓	↓	↓	↓	↓	↓
\$	£	Δ	+	@	*	#

10.(1) Given expression :

9 D 4 B 3 C 6 5 A 5 = ?

A → ÷
B → +
C → -
D → ×

After conversion

$$? = 9 \times 4 + 3 - 65 \div 5$$

$$\text{or, } = 9 \times 4 + 3 - 13$$

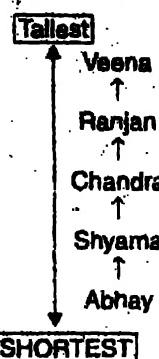
$$\text{or, } = 36 + 3 - 13 = 26$$

(11-15) : The given information can be presented in a tabular form as follows :

Subject	Person					
	Radha	Ajay	Mala	Sonu	Satish	Mita
Physics	✓	✓	✓	—	✓	—
Chemistry	—	—	✓	—	✓	—
English	✓	✓	✓	✓	—	✓
History	—	—	—	✓	—	✓
Maths	✓	✓	—	—	—	✓

Note : The tick (✓) mark indicates that the person is intelligent in the particular subject.

18.(4)



Therefore, Ritesh is  $5 + 3 = 8$  km towards West from the starting point.

22.(3) Both the statements are already aligned.

Some toys are boxes.

All boxes are jeeps.

We know that,

I + A  $\Rightarrow$  I type conclusion

Thus, our derived conclusion would be :

"Some toys are jeeps".

23.(4)

Keyword

1	2	3	4	5	6
some	writers	are	not	great	men

Password

1	6	4	5	2	3
some	men	not	great	writers	are

Similarly,

Keyword

1	2	3	4	5	6
children	like	to	play	and	read

Password

1	6	4	5	2	3
children	read	play	and	like	to

24.(1)

Total number of students in the class =  $(\text{Position of a student from the top}) + (\text{Position from the bottom of that student}) - 1$   
 $= 14 + 21 - 1 = 34$

25.(5)

1 2 [3] 4 [5] 6 7 8 [9] 10  
F I [G] U [R] A T I [Q] N

Specified letters  $\rightarrow$  G, R, A, O

Meaningful word  $\rightarrow$  GARO

26.(2).

(lik) dye [pin]  $\rightarrow$  eat (and) drink

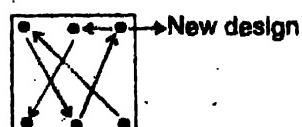
[pin] bit sem  $\rightarrow$  drink hot milk

(lik) sem ani  $\rightarrow$  milk (and) curd

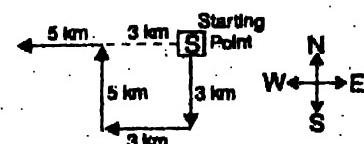
Thus, code for eat  $\rightarrow$  dye.

27.(3) The movement of designs can be shown as :

From Problem Figure (1) to (2)



Similar changes occur from Problem Figure (3) to (4) and from Problem Figure (5) to Answer Figure (3).



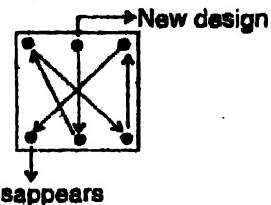
28.(2) The line segment is rotating 45° clockwise and 90° anticlockwise alternately and two solitary designs shift to the other side in each subsequent figure.

29.(1) The last design of each figure becomes the first design in the next figure and a new design appears in the last. Again, all the designs move in anticlockwise direction.

30.(4) In each subsequent figure respectively one, two, three, four, five... triangles are reversed starting from the top.

31.(1) The arrow is moving 45° clockwise while the pin-head 45° anticlockwise in each subsequent figure.

32.(5) The movement and change in designs from Problem Figure (1) to (2) can be shown as :



Similar changes occur in the subsequent figures.

33.(5) All the attached designs move in clockwise direction and a new design appears in the upper left corner.

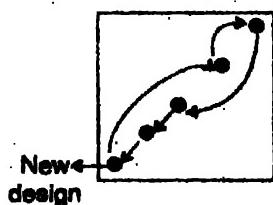
34.(3) In each subsequent figure one design is added in a set pattern.

35.(5) In each subsequent figure the pre-existing arcs are reversed and one more arc is introduced on either side of the line segment in a set order.

36.(2) Alternately three and two line segments are added in a set order to complete the squares.

37.(3) In each subsequent figure each design moves to the right and the right most design is disappeared and a new design appears at the left most position.

38.(4) The movement and change in designs can be shown as :



39.(2) The arrow (↑) rotates 45° and 90° clockwise alternately whereas the design (T) rotates 90° and 45° anticlockwise alternately.

40.(4) In each subsequent figure the bottom design moves diagonally after rotating 90° clockwise and a new design appears in the lower left corner.

41.(1) In each subsequent figure all the designs are reversed and the first design from the top moves to the third position, the second design moves to the top, the third design moves to the fourth position and the fourth design moves to the second position.

**TRICK :** This problem is based on the rule (1) = (5) and hence (2) = (6).

42.(4) In each subsequent figure the designs interchange position in the following manner :

Outermost design → Middle design

Innermost design → Outermost design

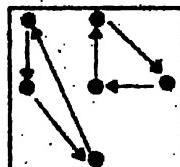
Middle design → Innermost design and it is replaced by a new design.

43.(2) All the designs are reversed in the second figure from the first figure.

44.(4) From first figure to second figure all the designs are reversed and move from left to right and a new design appears at the left position.

45.(2) From first figure to second figure the top design moves to the bottom diagonally after being reversed laterally and the arrow head also reverses its direction. The middle design rotates 45° anticlockwise at its place while the bottom design moves to the top diagonally after being reversed laterally.

46.(3) The movement of designs from first figure to second figure can be shown as :



47.(5) From first figure to second figure the white leaflet rotates 135° clockwise while the half shaded leaflet rotates 135° anticlockwise and the

shaded part moves to other end.

48.(5) Except in figure (5) in all other figures six curves face the same direction and two curves face opposite direction. But in figure (5) four curves each are oriented towards the same direction.

49.(3) Except in figure (3) the number of designs is increasing by one in clockwise direction in all other figures.

50.(4) Except figure (4) all other figures have been divided into two equal parts.

51.(5) Except in figure (5), in all other figures there is difference of two sides between the two designs.

52.(1) Except figure (1) all other figures can be obtained by rotating any of the figures either clockwise or anticlockwise.

## ENGLISH

53.(3) Change 'superior than' into 'superior to' because Latin adjectives— superior, senior, junior, inferior, etc. take 'to' in comparative degree.

As : Mohan is senior than me. — Wrong

Mohan is senior to me. — Correct

54.(2) Change 'run over' into 'ran over' because the principal clause is in past tense, so the subordinate clause must be in past tense.

55.(3) Replace 'which' by 'that', because use of 'which' is meaningless here. It is not grammatically correct expression.

56.(4) 'the daggers' is a wrong use of phrase. The correct phrase—'the daggers drawn'.

57.(1) Replace 'much pleased' by 'very pleased' because 'pleased' contented, tired etc. are past participles, but they take 'very' instead of much. As : Sohan is much pleased—Wrong

Sohan is very pleased —Correct  
but, This story is much interested for you.—Correct

58.(2) Change 'have' into 'has' because 'each' every, someone etc. take singular verb.

As : Each has to do this.

↓  
↓  
each s.v.

59.(3) Change 'what' into 'that' because everything and anything are followed by that.

Ex. I can do everything what is essential.—Wrong

I can do everything that is essential.—Correct

60.(1) Replace 'despite of' 'by 'despite' because despite, describe, comprise etc. never take preposition after them.

61.(1) As we use definite article before the name of political building, so use 'the Vidhan Sabha' at the place of 'Vidhan Sabha'.

62.(2) Change 'were' into 'was' because 'the number of' is followed by singular verb.

The number of boys is a few

↓  
↓

The number of s.v.

97.(2) 'Extinct' means quenched, left, die out, obsolete etc. Here the other word for extinct is 'dieout' i.e option (2), in reference to the context

98.(1) The same words for 'consensus' are unanimity, agreement etc. But here, the correct option is 'unanimity'.

99.(3) 'Mooted' means assembled, debated, raised, discussed etc. In reference to the context the correct option is (3)..

100.(2) 'Alarm' means warning, sound, hubbub, warning of approaching danger etc. Here the right opposite of 'alarm' is in option (2).

101.(1) 'Seriously' means earnestly, soberly, thoughtfully etc. Here the correct antonym for 'seriously' will be option (1) i.e. 'carelessly'.

102.(1) 'Reduction' means act of reducing, diminution, subjugation etc. In reference to the context, the correct antonym for 'reduction' will be 'increment', which is in option (1).

103.(2) The word 'sound' is used in the passage to mean to get note of, announce, pronounce etc. But to get the opposite meaning of 'sound' in

relation to the passage, we should choose option (2) i.e. 'steal'.

104.(4) 'Confusion' is the noun of confuse (v). Confusion means bewilderment or embarrassment, disorder, state of uncertainty etc. Hence, in context to the passage, the best antonym for 'confusion' will be 'sincerity'.

### MATHEMATICS

$$105.(1) ? = 0.07 \times 0.009$$

$$= \frac{7}{100} \times \frac{9}{1000} = \frac{63}{100000}$$

$$= 0.00063$$

$$106.(5) ? \div 2.4 = 660$$

$$\frac{?}{2.4} = 660$$

$$? = 2.4 \times 660$$

$$= \frac{24 \times 660}{10} = 24 \times 66$$

$$= 1584$$

$$107.(3) ? \div \sqrt{7} + 161 = 203$$

$$? \div \sqrt{7} = 203 - 161$$

$$? = 42 \times \sqrt{7} = 42\sqrt{7}$$

$$108.(1) ? = 8009 + 7913 + 4670$$

$$= 20592$$

$$109.(2) 9864 - ? = 8134 - 3124$$

$$\text{or, } 9864 - ? = 5010$$

$$\therefore ? = 9864 - 5010 = 4854$$

$$110.(2) 2630 + 24632 - ? = 19306$$

$$27262 - ? = 19306$$

$$\therefore ? = 27262 - 19306$$

$$= 7956$$

$$111.(5) ? = 2\frac{1}{5} \text{ of } 2575 + 40\% \text{ of } 160$$

$$= \frac{11}{5} \times 2575 + \frac{40 \times 160}{100}$$

$$= 5865 + 64 = 88.515$$

$$112.(2) ? = \frac{165 + 445 \times 4}{25}$$

$$= \frac{165 + 1780}{25} = \frac{1945}{25} = 77.80$$

$$113.(1) 1.2 \times 1.2 = 144 + ?$$

$$1.2 \times 1.2 = \frac{144}{?}$$

$$? = \frac{144}{144} = \frac{14400}{144} = 100$$

$$114.(5) 15.4238 - ? = 667.316 - 586.987$$

$$\text{or, } 15.4238 - ? = 80.329$$

$$\therefore ? = 15.4238 - 80.329$$

$$= - 64.9052$$

$$115.(3) ? = 1827 + 101.5$$

$$= \frac{1827}{1015} = 18$$

$$116.(4) ? = 103.2 + 0.4 \times 0.12$$

$$= \frac{103.2 \times 0.12}{0.4}$$

$$= \frac{1032 \times 10 \times 12}{4 \times 100}$$

$$= \frac{1032 \times 12}{400} = 30.96$$

$$117.(1) ? = 15\% \text{ of } 550 + 25\% \text{ of } 840$$

$$= \frac{15 \times 550}{100} + \frac{25 \times 840}{100}$$

$$= 82.5 + 210 = 292.5$$

$$118.(5) 3606 + 5148 = 9463 + ?$$

$$\text{or, } 8754 = 9463 + ?$$

$$\therefore ? = 8754 - 9463 = - 709$$

$$119.(2) ? = 3\frac{1}{7} + 6\frac{1}{4} - 2\frac{3}{4}$$

$$= \frac{22}{7} + \frac{25}{4} - \frac{11}{4}$$

$$= \frac{88 + 175 - 77}{28}$$

$$= \frac{263 - 77}{28} = \frac{186}{28} = 6.64$$

$$= 6\frac{18}{28} = 6\frac{9}{14}$$

$$120.(1) ? = 16\frac{1}{3} + 3\frac{1}{5} + 9\frac{1}{2}$$

$$= \frac{49}{3} + \frac{16}{5} + \frac{19}{2}$$

$$= \frac{490 + 96 + 285}{30}$$

$$= \frac{871}{30} = 29\frac{1}{30}$$

$$121.(4) ? = 36.137 + 27.3257$$

$$= 63.4627$$

$$122.(2) ? = 10 + 0.18 + 6 + 0.3 \times 0.4$$

$$= 10.18 + 20 \times 0.4$$

$$= 10.18 + 8 = 18.18$$

$$123.(2) \frac{7}{\sqrt{7}} = \frac{49}{35}$$

$$\sqrt{7} = \frac{35 \times 7}{49}$$

$$\therefore \sqrt{7} = 5$$

$$\therefore ? = (5)^2 = 25$$

$$124.(3) \sqrt{?} + (11)^2 = 144$$

$$\sqrt{?} = (12)^2 - (11)^2$$

$$\text{or, } \sqrt{?} = (12+11)(12-11) = 23$$

$$\therefore ? = (23)^2 = 529$$

$$125.(1) \frac{2}{3} \text{ of } 930 + ? \% \text{ of } 1600$$

$$= 1020$$

$$\Rightarrow \frac{2}{3} \times 930 + \frac{? \times 1600}{100} = 1020$$

$$\Rightarrow 620 + ? \times 16 = 1020$$

$$\Rightarrow 16 \times ? = 1020 - 620$$

$$\therefore ? = \frac{400}{16} = 25$$

$$126.(2) 616 + 2465 - ? = 763$$

$$\therefore ? = 3081 - 763 = 2318$$

$$127.(3) ? = \frac{440 + 12 \times 70}{25 + 55}$$

$$= \frac{440 + 840}{80} = \frac{1280}{80} = 16$$

$$128.(1) ? = \frac{24 \times 5 - 3 \times 12}{72 + 4 - 2 \times 8}$$

$$= \frac{120 - 36}{18 - 16} = \frac{84}{2} = 42$$

$$129.(2) ? = 460 + 3960 \div 24$$

$$= 460 + \frac{3960}{24}$$

$$= 460 + 165 = 625$$

$$130.(1) ? = 3021 + 8004 - 3012$$

$$= 11025 - 3012 = 8013$$

$$131.(1) ? = \frac{(2 \times 17 - 2 \times 11) \times 4}{7 + 3}$$

$$= \frac{(17-11) \times 8}{10} = \frac{6 \times 8}{10}$$

$$\Rightarrow \frac{48}{10} = 4.8$$

132.(1) Total number of cartons

$$= \frac{20 \times (5 \times 12)}{50}$$

$$= \frac{20 \times 60}{50} = 24$$

$\therefore$  Additional cartons =  $24 - 20 = 4$

133.(5) Let there are  $x$  employees

$\therefore$  Number of 10th pass

$$= 40\% \text{ of } x = \frac{2x}{5}$$

$$\text{Remaining employees} = x - \frac{2x}{5}$$

$$= \frac{3x}{5}$$

$$\text{Number of graduates} = 50\% \text{ of } \frac{3x}{5}$$

$$= \frac{3x}{10}$$

i.e., Remaining employees

$$= \frac{3x}{5} - \frac{3x}{10} = \frac{3x}{10}$$

According to question,

$$\frac{3x}{10} = 180$$

$$\therefore x = 600$$

Therefore, the number of graduates

$$= \frac{3x}{100} = \frac{3 \times 600}{100} = 18$$

134.(4) Gain = 13%

Selling price = Rs. 22600

$$\therefore \text{C.P.} = \frac{\text{S.P.} \times 100}{100 + \text{Gain}\%}$$

$$= \frac{22600 \times 100}{10 + 13}$$

$$= \text{Rs. } 20,000$$

$$\therefore \text{Gain} = 22600 - 20000$$

$$= \text{Rs. } 2600$$

TRICK :

$$\text{Gain} = \frac{13}{113} \times 22600$$

$$= \text{Rs. } 2600$$

135.(5) In 10 minutes 12 km

In 60 minutes 72 km

i.e., In one hour 72 km

137.(2) According to question:

$$\frac{(x+y)+y}{2} = x$$

$$\text{i.e. } x = \frac{y}{2-y}$$

138.(4) Let the three consecutive multiples of 3 of be  $x, x+3, x+6$

$$\therefore x + (x+3) + (x+6) = 90$$

$$\text{or, } 3x + 9 = 90$$

$$\therefore x = \frac{90-9}{3} = \frac{81}{3} = 27$$

$$\therefore \text{Largest number is } x+6 \\ = 27+6 = 33$$

139.(3) Suppose A and B meet after  $x$  hours. In  $x$  hours A covers  $30x$  km and B covers  $25x$  km.

They will meet each other only when  $30x + 25x = 165$

i.e.,  $x = 3$  i.e., they meet after three hours i.e., they meet at 10 AM.

$$140.(2) \frac{a}{b} = \frac{2}{3} \text{ and } (a+2) = 4$$

$$\therefore a = \frac{8}{5}, b = \frac{12}{5}$$

$$\text{i.e. } b - a = \frac{4}{5}$$

$$\text{i.e. } \frac{a+b}{b-a} = \frac{4}{4/5} = \frac{5}{1} = 5 : 1$$

141.(3) We know that

Surface area of the sphere =  $4\pi r^2$

$\therefore$  According to question,

$$4\pi r^2 = 144$$

$$\therefore r = 6$$

$\therefore$  Radius of the sphere = 6 cm

$$\therefore \text{Volume of the sphere} = \frac{4}{3} \times \pi r^3$$

$$= \frac{4}{3} \times \pi \times 216 = 288\pi$$

$$142.(2) M + W = 40$$

$$\text{i.e. } \frac{M}{W} = \frac{3}{1}$$

$$\therefore M = 30, W = 10$$

If  $\frac{M}{W} = \frac{1}{3}$  and  $M = 30$ , then  $W = 90$

Therefore, 80 litres of water should be added in the tank.

$$143.(2) \frac{2+7+6+x}{4} = 5$$

$$\therefore x = 20 - 15 = 5$$

and

$$\frac{18+1+6+x+y}{4} = 10$$

$$\therefore y = 10$$

144.(1) Let number of 50 paise coins =  $x$  and number of 25 paise coins =  $y$

$$\therefore 50x + 25y = 5400 \quad \dots (i)$$

$$x = \frac{1}{6}y \quad \dots (ii)$$

From equations (i) and (ii) we get,

$$\therefore x = 27, y = 162$$

$$\text{i.e., } x + y = 189$$

145.(4) Let  $x$  be the number

$$\text{i.e., } 37\% \text{ of } x = 203.5$$

$$\text{i.e., } x = 550$$

$$\therefore 50\% \text{ of } x = 275$$

$$146.(3) ? = \frac{19.50}{0.65} = \frac{1950}{65} = 30$$

147.(3) According to question,

$$40\% = 600 \text{ (males)}$$

$$\therefore 100\% = \frac{600}{40} \times 100$$

$$= 1500$$

$\therefore$  Total number of employees

$$= 1500$$

$\therefore$  Number of female graduates  
= 75% of 900 = 675

Number of male graduates

$$= 80\% \text{ of } 600 = 480$$

$$\text{Total graduates} = 675 + 480 = 1155$$

148.(5) In one minute, both of them

together will finish  $\frac{1}{30} + \frac{1}{60} = \frac{1}{20}$  of the work

$\therefore$  Work will be finished in 20 minutes.

$$149.(1) \text{Original area} = 8 \times 6 \\ = 48 \text{ sq. m.}$$

$$\text{New area} = 6 \times 4 = 24 \text{ sq. m.}$$

$\therefore$  New area : Original area

$$= 24 : 48 = 1 : 2$$

150.(1) According to question,

$$2T + 3C = 2315$$

$$\text{i.e. } 3T + 2C = 2910$$

$$\therefore C = 225, T = 820$$

$$\therefore \text{Cost of 4 chairs} = 4C$$

$$= 4 \times 225 = \text{Rs. 900}$$

151.(4) Let the total number of pages in the book be  $x$ .

$\therefore$  According to question,

Raman reads  $\frac{3}{8}x$  pages in one

day and  $\frac{4}{5}\left(x - \frac{3}{8}x\right)$  pages on another day.

i.e. Number of pages left over

$$= x - \frac{3}{8}x - \frac{4}{5}\left(x - \frac{3}{8}x\right) = \frac{x}{8}$$

$$\therefore \frac{x}{8} = 30$$

$$\therefore x = 240$$

152.(1) Let the total income be Rs.  $x$

$\therefore$  According to question,

$$x - \frac{1}{4}x - \frac{1}{5}x = 231$$

$$\frac{20x - 5x - 4x}{20} = 231$$

$$11x = 231 \times 20$$

$$x = \frac{231 \times 20}{11} = 420$$

153.(3) Ram will row upstream @ 3.5 km/hr and downstream @ 6.5 km/hr

Let the distance be  $x$  km.

$$\frac{x}{6.5} + \frac{x}{3.5} = 1$$

$$\text{i.e. } x = 2.275 \text{ km}$$

154.(2) Let the ages of the man and his two children be  $M$ ,  $C_1$  and  $C_2$  respectively,

$$\therefore M = 3(C_1 + C_2) \quad \dots (1)$$

$$\text{i.e., } M + 5 = 2((C_1 + 5) + (C_2 + 5))$$

$$= 2(C_1 + C_2 + 10) \quad \dots (2)$$

From equations (1) and (2), we get

$$M + 5 = 2\left(\frac{M}{3} + 10\right)$$

$$\text{i.e., } M = 45$$

155.(4) The ratio in which Santosh and Akash invest is given by  $42500 \times 12 : 7000 \times 7$

$$\text{i.e. } 510000 : 490000 = 51 : 49$$

$\therefore$  Santosh's share in profit

$$= \frac{51}{100} \times 20000 = \text{Rs. } 10200$$

$$\text{Akash's share} = \frac{49}{100} \times 20000$$

$$=\text{Rs. } 9800$$

$$156.(5) \frac{14}{15} = 0.93$$

$$\frac{13}{20} = 0.65$$

$$\frac{12}{19} = 0.632$$

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Kiran's Up-to-date Approach to

**55 SET RS. 200**

**RAILWAY**

(Tech. & Non Tech)

**PRACTICE WORK BOOK**

## TEST - V

### DESCRIPTIVE TEST

**Ques. 1 :** "There is enough on this earth for human need, but not for human greed". Explain this statement with suitable examples.

**Ans.** We often hear, from scientists, ecologists and environmentalists, policy planners and almost every one that mankind is facing a severe resource crunch. There is scarcity of food, water, energy, dwelling space, agricultural fields, green belts and almost anything that is crucial for human survival and existence. The projections and forecasts for future portray an even grimmer scenario; almost doomsday prophecies. It is in this context that we are reminded of the above statement by that saint, statesman and visionary rolled in one called Mahatma Gandhi. Let us see the truth of this statement.

The actual needs of human beings are quite meagre and the mother earth has bestowed her bounties enough for living beings teeming on this planet. Where is the problem then? Why are the billions still deprived of the basic needs? Perhaps at the root of this problem is a severe disequilibrium between available resources and their equitable distribution—between North and South, Rich and Poor, few and many—both at the micro and macro level. Isn't it a fact that a handful of industrially advanced-countries of European and American Continents command more than 70 per cent resources of this world while the poorer countries of Asia, Africa and Latin America have to do with less than 30 per cent of the resources. Even more bitter fact is that the poorer countries have potentially far greater natural resources than the rich ones but somewhere down the line they lagged behind in the technological race.

Let us take the case of our own country. Despite the progressive land reforms and technological forays like green revolution, the bitter truths of Kalahandi and Bastar remain with us. As late as last year farmers in Andhra Pradesh and Gujarat leapt to the flames of death preferring to the ignominous existence of indebtedness. Surely, a wiser distribution of resources would have mitigated the problems of shortage and scarcity. At the core of this inequity and lopsided distribution lies human greed. Some natural phenomenon like famine and commodity shortage are actually man made in disguise. Isn't it true that the recent onion and potato shortage and sugar shortage a year before were the results of human greed—A trader-politician nexus in lust for lucre thriving in the turbulent led common man misery. Shortage of dwelling space has similarly much to do with the rapacity of the private sector builder and property dealer mafia. Even as these lines are being written acre after acre of greenery is being axed somewhere in Garhwal or Assam or Arunachal to feed the lusty fires of timber barons.

Besides the disproportionate devolution

of resources, mismanagement as well as inability to manage resources is responsible in no small measure for the enormous deprivation of human needs. A majority of the Indians are amongst the least energy consumers even as an ocean of energy in the form of oil and coal lies untapped in India's underbelly. This is not to say of the year round brilliant sun shine, breezing wind and frothing sea-shores idling on the six thousand into eight thousand square kilometers expanse that is, India. Need we say anything more on the truth that "There is enough for human needs.....".

**Ques. 2 :** "Man is born free but everywhere he is in chains." Comment.

**Ans.** Whosoever said it, said it apt. Marx did not state it but would not have said anything different. It was Rousseau who said it. Social contract theory is much discredited today. However, the truth in the above statement calls for reflection even today as two hundred years ago.

The above statement questions the apparent freedom of mankind and highlights the actual contradiction found in his freedom of birth and bondage later. There are several questions inherent in this contradiction. How free is man? Is he really free even in being born? Or, is his fact of bondage, a myth? Is he free to choose and act? Is the above statement time less or time contextual? Let us consider these questions and analyse.

"Man is born free". When a man takes birth he is an innocent little lump of living flesh with no duties and responsibilities. He is as pure and innocent as a child of God. Critics would however challenge this assertion. Even as a man is born he is not merely a biological being but also a social being—Son or daughter of someone with a host of relatives, indebted to parents and society at large for being given an identity. He also inherits the station and position of his genitors by virtue of being born to them. He may be born in a palace or a hovel, to a patrician or plebian, to the class of bourgeoisie or proletariat. Perhaps Rousseau's contention was that of an idyllic existence at birth and a reaction against the milieus which puts him at a bondage or chains. That idyll is a utopia far from reality.

Next, a man's being found in chains is a fact difficult to challenge. The truth of his bondage is reflected at various levels. First, the biological bondage. A man's spirit is limited from its fullest expression by the biological facts of birth, death, old age, diseases and deformities etc. Next, there are social and political chains. Social evils like atrocities against women and certain other sections is still a far cry from the ideals of an equal society based on human dignity and rights. Besides, several other ills like malnutrition, illiteracy, unemployment, civil war and strife mock at the concept of a civilized and liberalized world. At the political level human beings have been freed from chains and fetters of every kindoretically. However at the level of Praxis, suppression of the weaker by the powerful

ruling elite, exploitation of the masses by a handful of capitalists is a living reality. Then, are dictatorial regimes who have curbed the man's right of expression and speech. Fundamental Rights and Human Rights are too theoretical concepts in regimes where life and liberty is being infringed upon with impunity. Therefore, strictly speaking man is neither born free nor lives in freedom thereafter. In any case absolute freedom is merely a theoretical concept never to be had in a state and society.

**Ques. 3 :** Since early 90s government began the process of liberalisation. Give three arguments in favour and three arguments against the policy of liberalization.

#### Arguments in favour

**Ans.** (1) Since 1970s the wave of liberalization had engulfed the entire world. India was late to enter and adopt this process. The protagonists of liberalization blamed the evils like economy of shortage, quota, licensing, delay and loss in the closed Indian economy. Besides, low production, loss making units, deficit financing and consequent inflation and the burden of national debt as well as problems with balance of payments could be rectified only if India took to liberalization.

(2) It would have been difficult to imagine a strong big and powerful country like India leading an isolationist policy like Burma. Even an iron curtain like Soviet Russia had adopted policies like glasnost and perestroika before India stepped on to the path of liberalization.

(3) Immediately before taking to liberalization, India was in a deep financial crisis. Indian gold had to be pledged because foreign currency in India had dipped to the lowest ever levels sufficient barely for three weeks. Besides infrastructural bottlenecks had mounted and economic breakdown was imminent. Therefore, India was forced to liberalize to avail of three tranches of dollar 3.2 billion IMF loans.

#### Arguments against

(1) Liberalization has never done any good to the third world countries. The economic breakdown and consequent miseries witnessed in the Latin American countries, as also the recent currency crisis in the South Asian countries have all been due to liberalization.

(2) Liberalization leads to the entry of MNCs who monopolise the consumer sector and repatriate a huge chunk of national wealth. Besides, the MNCs also monopolise the natural wealth of a nation to capitalise on it, depriving the nation of its valuable genetic wealth for ever.

(3) The experience of the last decade in liberalization has shown that the employment has not come down. Most of the loss making Public sector units which had closed down leading to retrenchment and golden handshake have not been revived nor the persons losing their jobs have been given alternative sources of employment. On the contrary the gap between the rich and poor has widened.

# BANK & RBI CLERICAL EXAM.

SET-3

## TEST-I REASONING

**Directions (1-6) :** Study the following information carefully and answer the questions given below it :

(i) The Jaiswal family consists of six members- A, B, C, D, E and F.

(ii) There are two married couples in the family.

(iii) B is the businessman and the father of E.

(iv) F is the grandfather of C and is a share broker.

(v) D is the grandmother of E and is a doctor.

(vi) C is the daughter of A.

(vii) There are one businessman, one sharebroker, one lady teacher, one doctor and two students in the family.

1. What is the profession of A?

- (1) Doctor
- (2) Student
- (3) Teacher
- (4) Cannot be determined
- (5) None of these

2. Which of the following is definitely a group of female members?

- (1) ACE
- (2) EBF
- (3) ACD
- (4) Cannot be determined
- (5) None of these

3. Who is the sister of E?

- (1) C
- (2) D
- (3) F
- (4) Cannot be determined
- (5) None of these

4. Who is the father-in-law of A?

- (1) D
- (2) F
- (3) B
- (4) Cannot be determined

(5) None of these

5. How many female members are there in the family?

- (1) Three
- (2) Four
- (3) Either three or four
- (4) Five
- (5) None of these

6. Which of the following is definitely a group of male members?

- (1) EF
- (2) AF
- (3) DE
- (4) BF
- (5) None of these

7. Pointing to a lady in a photograph Rahul said, "The son of her only brother is the brother of my wife". How is the lady related to Rahul?

- (1) Mother's sister
- (2) Sister of father-in-law
- (3) Grandmother
- (4) Mother-in-law
- (5) None of these

8. How many such pairs of letters are there in the word TURBULENCE which have as many letters between them in the word as in the alphabet?

- (1) Two
- (2) Three
- (3) Four
- (4) Five
- (5) None of these

9. If it is possible to form a meaningful word with the third, the fifth, the seventh, the ninth and the tenth letters of the word RELINQUISH, using each letter only once, mark the first letter of that word as your answer. If no such word can be formed mark 'X' as your answer and if more than one such word can be formed mark 'M' as your answer.

(1) X

(2) M

(3) N

(4) S

(5) H

10. "GKND" is related to "JOSJ" in the same way as "TBIQ" is related to

- (1) WGMW
- (2) XFNX
- (3) WFNW
- (4) UELU
- (5) None of these

11. How many such R's are there in the following letter series which are immediately preceded by 'M' and immediately followed by 'S'?

R S M K R S R M R S K N R S P  
S R M K M R S R M S N K S M R S R  
S M R P

- (1) Two
- (2) Three
- (3) Four
- (4) Nil
- (5) None of these

12. If A + B means A is the son of B, A - B means A is the wife of B, AxB means A is the daughter of B and A+B means A is the mother of B then which of the following statements is true given that P × Q = R + S ?

- (1) S is the father of R
- (2) S is the mother of R
- (3) Q is the daughter-in-law of S
- (4) Q is the father of P
- (5) None of these

13. In a certain code language FRESCO is written as HUGVER. How will MURALS be written in that code language?

- (1) PXTDNV
- (2) OYSDMV
- (3) OXTCMU
- (4) OXTDNV
- (5) None of these

**14.** If all the letters of the word LONGANIMITY are arranged in alphabetical order which of the following will be the middle letter?

- (1) M
- (2) N
- (3) I
- (4) L
- (5) None of these

**15.** If '@' means 'x', '\$' means '+', '£' means '÷' and '@' means '-' then what will be the value of

$$80 \text{ £ } 8 \$ 7 @ 3 @ 14 = ?$$

- (1) 21
- (2) 24
- (3) 17
- (4) 7
- (5) None of these

**16.** If both the statements "All books are pens" and "No pen is ink" are true then which of the following can be inferred from these two statements?

- (1) Some books are not pens
- (2) No book is pen.
- (3) All pens are books
- (4) Some pens are ink.
- (5) None of these

**17.** If 'A' is written as '@', 'E' as '\$', 'G' as '#', 'L' as '%', 'M' as '£', 'P' as '@' and 'U' is written as '+', then how PLUMAGE be written using the given code?

- (1) @ % + £ # \$ @
- (2) @ % + £ @ # \$
- (3) \$ @ # % @ + £
- (4) % @ £ + # @ \$
- (5) None of these

**18.** If the password is "ane sem lik tik gee pie" for the keyword "sem lik pie gee tik ane", what will be the password for the keyword "bis kar cen mik sik jen"?

- (1) jen bis kar cen sik mik
- (2) jen kar bis sik cen mik
- (3) cen jen sik mik kar bis
- (4) jen bis kar sik mik cen
- (5) None of these

**19.** Deepak remembers that his sister's birthday is certainly after 8th December and certainly before 12th

December but their mother remembers that her daughter's Birthday is certainly after 10th December and before 15th December. If both of them are true, which of the day in December is the birthday of Deepak's sister?

- (1) 10th
- (2) 12th
- (3) 11th
- (4) Cannot be determined
- (5) None of these

**20.** In a certain code language " $\Delta \square +$ " means "Red and Blue", "% + \$" means "Blue Green Colour" and " $\Delta \% \square$ " means "Green and White". What is the code for "Red" in that code language?

- (1)  $\Delta$
- (2)  $\square$
- (3) +
- (4) Cannot be determined
- (5) None of these

**Directions (21-26) :** Read the following letter-number-symbol sequence carefully and answer the questions given below it :

B T 5 R M @ D P L G 7 A S # N C  
3 E £  $\square$  K J 9 H U Z

**21.** Which of the following elements will be sixth to the right of thirteenth element from your right in the above sequence?

- (1) E
- (2) K
- (3)  $\square$
- (4) £
- (5) None of these

**22.** If the first half of above sequence is written in the reverse order which element will be eighth to left of C?

- |       |       |
|-------|-------|
| (1) M | (2) @ |
| (3) P | (4) D |
- (5) None of these

**23.** Which of the following elements is exactly midway between the eighth element from your left and the eleventh element from your right?

- |       |       |
|-------|-------|
| (1) # | (2) 7 |
| (3) S | (4) A |
- (5) None of these

**24.** What should come in the place

of question-mark (?) in the following letter-number-symbol sequence with reference to the above sequence?

- RG#, @SE, PCJ, ?
- (1) AEE
  - (2) GEZ
  - (3) 7EZ
  - (4) L□U
  - (5) None of these

**25.** If every alternate element starting from G is dropped in the above sequence, how many letters, numbers and symbols respectively will be left?

- (1) 11, 2, 4
- (2) 2, 4, 11
- (3) 11, 4, 2
- (4) 10, 5, 2
- (5) None of these

**26.** Four of the following five are alike with respect to their position in the above sequence and hence form a group. Which one does not belong to that group?

- (1) ML7
- (2) ACE
- (3) T@P
- (4) SEK
- (5) NEK

**27.** In a certain code language DIRECT is written as FJTFEU. How will PARLEY be written in that code language?

- (1) RBTMGZ
- (2) QCSNFA
- (3) RBTNFZ
- (4) SCUMGZ
- (5) None of these

**28.** From her house Sudha starts walking towards East and after walking 10km she turns towards South and walks 5km. She then turns to her right and walks 5 km and again she turns to her right and walks 5 km. How far is she now from where she did start her journey?

- (1) 5 km
- (2) 10 km
- (3) 15 km
- (4) 25 km
- (5) None of these

**Directions (28-48) :** There are two sets of figures. One set is called Problem Figures while the other set is called Answer Figures. Problem set figures form some kind of series. You have to select one figure from the Answer set figures which will continue the same series as given in Problem set figures.

**PROBLEM FIGURE      ANSWER FIGURES**

29. 1 2 3 4 5
30. 1 2 3 4 5
31. 1 2 3 4 5
32. 1 2 3 4 5
33. 1 2 3 4 5
34. 1 2 3 4 5
35. 1 2 3 4 5
36. 1 2 3 4 5
37. 1 2 3 4 5
38. 1 2 3 4 5
39. 1 2 3 4 5
40. 1 2 3 4 5

**TEST-II**

**ENGLISH**

**Directions (54-64) :** Read the sentence to find out whether there is any error, in it. The error, if any will be in one part of the sentence. The number of that part is the answer. If there is no error, the answer is (E).

54. He advised me(1)/ do not (2)/

run in (3)/ the sun (4)/ No error (5).

55. They were further appeared by 1% reduction (1)/ in interest rate on rupee exports(2)/ and a 100% deduction in respect of income (3)/ derived from exports of computer software exports.(4)/ No error (5).

56. At the begining of the nineteenth century(1)/ India was regarded(2)/ as one of few country with least

possibilities (3)/ for the rise of nationalism or the growth of national movement.(4)/No error (5).

57. In his youth(1)/he used(2)/ to visit(3)/ Sinha's and Singh's company(4)/No error(5).

58. The lawyer said that accused (1)/ should not have washed (2)/ a whole week (3)/ before coming to help.(4)/ No error (5).

41. 1 2 3 4 5
42. 1 2 3 4 5
43. 1 2 3 4 5
44. 1 2 3 4 5
45. 1 2 3 4 5
46. 1 2 3 4 5
47. 1 2 3 4 5
48. 1 2 3 4 5

**Directions (49-53) :** The second figure in the first unit of the problem figures bears a certain relationship to the first figure. Similarly, one of the figures in the answer figures bears the same relationship to the first figure in the second unit of the problem figures. You are therefore to locate the figure which would fit the question mark.

**PROBLEM FIGURE      ANSWER FIGURES**

49. ? 1 2 3 4 5
50. ? 1 2 3 4 5
51. ? 1 2 3 4 5
52. ? 1 2 3 4 5
53. ? 1 2 3 4 5

59. One of the persons (1)/ whom I knew to be (2)/ a scholar of geology was (3)/ surprised at the recent earthquake.(4) No error(5)

60. Many a man has learnt(1)/ that indiscipline in any(2)/ sphere of the life (4) is harmful.(4)No error(5)

61. We did our best to save the patient (1)/ but he had died (2)/ the moment the doctor was called in(3)/ and we were filled with sorrow.(4) No error (5).

62. The Moinul Haque Stadium of Patna is one of the largest stadiums of India (1)/ with (2)/ not less than eight thousand seats (3)/ for the spectators. (4) No error(5).

63. We ought to be(1)/ dutiful to our society(2)/and we must work (3)/ for the upliftment of the poor. (4)/ No error.

64. For many centuries(1)/ before the establishment of the British rule(2)/ in India(3)/ the Hindus and the Muslims had lived together(4)/ No error(5).

**Directions (65-74) :** Pick out the most effective word from the given words to fill in the blank to make the sentence complete meaningfully.

65. She will come when she .... ready

- (1)-was (2) is
- (3) will be (4) shall be
- (5) would be

66. .... mother in her cried.

- (1) a (2) an
- (3) that (4) the
- (5) no

67. He .... with his left hand.

- (1) writes (2) is writing
- (3) wrote (4) had written
- (5) write

68. Who are you talking .... ?

- (1) with (2) at
- (3) for (4) to
- (5) from

69. He ate up .... food that was left.

- (1) a little (2) the little
- (3) little (4) the few
- (5) some

70. Send me a telegram .... you fall

III.

- (1) if (2) in case
- (3) if not (4) if any
- (5) as if

71. He spoke to me as if .... everything.

- (1) he knew (2) he knows

- (3) he had known
- (4) he will know
- (5) he has known

72. He was not familiar .... me.

- (1) with (2) to
- (3) from (4) at
- (5) for

73. I suggested that she .... go back.

- (1) should (2) would
- (3) will (4) can
- (5) could

74. Keep quite, we .... to the radio.

- (1) are listening
- (2) listen
- (3) will listen
- (4) were listening
- (5) would listen

**Directions (75-79) :** Rearrange the following five sentences 1, 2, 3, 4 and 5 in a proper sequence so as to form a meaningful paragraph then answer the questions given below.

1. Admittedly it could happen
2. So it is necessary to be a good public speaker to get to the top

3. Most of us have never spoken in public, let alone addressed a gathering.

4. Won't a few fumbles here a few slips there reduce us to a bundle of nerves and make us a laughing stock.

5. But how done one do it.?

75. Which of the sentences should come FIRST in the paragraph?

- (1) 2 (2) 1
- (3) 3 (4) 5
- (5) 4

76. Which of the sentences should come SECOND in the paragraph?

- (1) 3 (2) 4
- (3) 2 (4) 1
- (5) 5

77. Which of the sentences should come THIRD in the paragraph?

- (1) 1 (2) 2
- (3) 3 (4) 4
- (5) 5

78. Which of the sentences should come FOURTH in the paragraph?

- (1) 4 (2) 2
- (3) 1 (4) 5
- (5) 3

79. Which of the sentences should come FIFTH in the paragraph?

- (1) 1 (2) 5

- (3) 3 (4) 2

(5) 4

**Directions (80-89) :** In the following passage there are blanks each of which has been numbered. These numbers are printed below the passage and against each five words are suggested one of which fits the blank appropriately in the context of the whole passage. Find out the appropriate word.

I wrote out the letter 80 and went out to post it 81 returning from the post office I saw a sailor who was dead 82. As soon as I reached near him he rushed 83 me, I could not 84 this goondalism of his. I caught hold of the ruffian's neck and 85 such as slap to his left cheeck that he came to his 86 immediately. Then he 87 that he had caught a Tratar 88 he kept quite for sometime and then went away 89.

80.(1) heartedly

- (2) knowing
- (3) slowly
- (4) hurriedly
- (5) fixed

81.(1) when (2) while

- (3) as (4) at the time

(5) for

82.(1) man (2) horse

- (3) eaten (4) drunk

(5) loved

83.(1) to (2) with

- (3) at (4) on

(5) off

84.(1) calculate

(2) tolerate

(3) anticipate

(4) articulate

(5) remove

85.(1) gave (2) administered

- (3) registered (4) arrested

(5) laughed

86.(1) senses (2) condition

- (3) afflictions (4) tenses

(5) respect

87.(1) found (2) realized

- (3) got (4) lost

(5) took

88.(1) learnt (2) alert

- (3) left (4) hurt

(5) received

89.(1) laughing(2) weeping

- (3) repenting (4) grumbling

(5) finishing

**Directions (90-98): Read the following passage carefully and answer the questions given below it. Certain words/phrases are given in bold to help you to locate them while answering some of the questions.**

Till recently, Cochin was known mainly as a fast growing sea-side city ideal for a short vacation. But today, it has emerged as a centre for excellence in medical science, thanks to the benign patronage of one person, namely, Holy Mother Sri Mata Amritanandamayi. The multi-speciality hospital that she has created from the emptiness of a water-logged village in the Cochin-suburb not only figures prominently in the map of specialised medical institutions in the country but also provides the most modern medical facilities to the poor and the under-privileged.

Conceived as an 800-bed, tertiary referral hospital, the Amrita Institute of Medical Science (AIMS) is being promoted and managed by the Mata Amritanandamayi Math, a public charitable trust. Today, one year after completion of the first phase of the project with 200 beds, the hospital has already earned a reputation of one which can provide specialised medical care to an entire spectrum of diseases. It has also earned a name as one which would admit and treat even the most high risk cases. "This is something which the other hospitals functioning on commercial lines would never do as it would affect their success rate", says a senior consultant in the Cardiac unit. "We have been performing high risk operations like the repair of the complicated aortic aneurysms and the paediatric open heart surgeries right from the beginning", he added. According to him, the success rate in these operations is comparable to the rates achieved by similar hospitals abroad.

In fact, the guiding principle of AIMS as visualised by Mata Amritanandamayi is to extend state-of-the-art speciality treatment to those who cannot afford it. "With such a mission statement we cannot afford to turn down cases based on the chances of its success or failure", said

a senior specialist in the hospital. "The success rate in the hospital is clear from the unprecedented rush that we are experiencing today", he said.

In less than one year the Cardio-Vascular and Thoracic Surgical department (CVTS) has performed over 1300 operations for heart, lung, blood vessels and other chest problems. The Cardiac catheterisation has performed 3000 procedures including 2000 diagnostic coronary angiograms. Another 500 coronary angioplasties with the placement of stents to remove blockages of the vessels that supply blood to the heart have also been performed by the hospital. Another 350 rheumatic valvular heart patients have undergone balloon dilations of the mitral valve. Minimally invasive coronary bypass operations are routinely done in the hospital. The number of surgeries which was 3 per day in the beginning has gone up to 8 to 9 per day at present. And all this has been achieved in a short span of less than one year.

The cardiac centre in AIMS is continuously updating its technology and knowledge base. The top-of-the-line electro physiological programme that it is implementing can correct electrical abnormalities in the heart. Its expertise in primary angioplasty and advances in left main stenting have been recognised world-wide that two leading medical institutes located in the US and Canada have invited AIMS to be part of the global trials being conducted as part of major studies initiated by them.

**90. The multi-speciality hospital is made with a view to —**

(1) cure the disease of the poor and have nots who die due to no treatment owing lack of money to meet the treatment.

(2) treat the poor and underprivileged with all modern techniques and facilities.

(3) operate various problems of the people with modern systems and updated techniques.

(4) mark the excellency of the city of Cochin which is known as a fast

growing sea side city ideal for short vacation.

(5) None of these.

**91. With the completion of the first anniversary the hospital earned—**

(1) fame of providing specialised medical care to entire spectrum of diseases.

(2) lots of fortunes as the US and Canada have invited AIMS to be a part of the global trials being conducted as part of major studies.

(3) handsome amount of money which will be utilized for various programmes to treat the disabled and unprivileged.

(4) government's recognition to start the full functioning of the hospital and provide treatment to the people in every best possible way.

(5) None of these

**92. Which of the following statements is/are appealing to you regarding the opinion of the senior consultant in cardiac unit?**

(1) there is something difference in AIMS with the other hospital relating to risky operations which costs enough money.

(2) the doctors are functioning on commercial lines in hospitals other than AIMS, where they work only for money and no success.

(3) AIMS is doing something authentic than other hospitals functioning on commercial lines as the cause would affect their rate of success.

(4) performing of highly risk operations like paediatric open heart surgery since the hospital has been set up.

(1) 1 and 4 (2) 2 and 4

(3) 3 and 4 (4) Only 3

(5) None of these

**93. AIMS is with a mission and dedication—**

(1) be with the poor and unprivileged to provide them better living.

(2) extend state of the art speciality treatment to people who cannot bear.

(3) provide treatment by degrees to the men, wretched and unable.

(4) guide people's treatment with best panacea and help cure disease overcoming pain and trouble.

(5) None of these.

94. Operations performed by CVTS in less than 1 year relates to—

- (1) balloon dilations of the mitral valve
- (2) heart, lungs, blood vessels and chest problems.
- (3) minimally invasive coronary bypass
- (4) placement of stents to remove blockages of vessels that supply blood to heart.

(5) All of these

95. Which of the following pairs has been wrongly matched?

- (1) 350—balloon dilations
- (2) 500—remove blockages
- (3) 8/9—day's operations
- (4) 800—AIMS' bed capacity
- (5) None of these

96. Routine operations done in the hospital on—

(1) coronary angioplasties with the placement of stents to remove blockages of blood vessels that supply blood.

(2) rheumatic valvular heart surgery.

(3) minimally invasive coronary bypass surgery

(4) operations on heart, lungs, chest and blood vessels.

(5) None of these.

97. Implementation of electro physiological programme can correct—

(1) blood circulation abnormalities in heart

(2) electrical abnormalities in heart.

(3) primary angioplasty and advances in left main stenting.

(4) blockage of the vessels that supply blood to the arteries.

(5) None of these

98. Which of the following statements is false in context of the passage?

(1) the cardiac centre is continuously updating its technology and knowledge base in AIMS.

(2) US and Canada have invited AIMS to be a part of the global trials being conducted as part of minor

studies initiated by them.

(3) the guiding principle of AIMS is visualised by Mata Amritanandamayi to extend state of the art speciality.

(4) AIMS started its first phase of project with 200 beds of total 800 beds.

(5) None of these

**Directions (99-101): Choose the word which is most nearly the same in meaning as the word or group of words given in bold as used in the passage.**

#### 99. Charitable

- (1) bountiful (2) liberal
- (3) donated (4) gifted

(5) presented

#### 100. Risk

- (1) major (2) danger
- (3) injurious (4) hazard
- (5) fragile

#### 101. Visualised

- (1) concerned (2) experienced
- (3) applied (4) imagined
- (5) gathered

**Directions (102-106): Choose the word which is most nearly the opposite in meaning as the word or group of words given in bold as used in the passage.**

#### 102. Supply

- (1) limit (2) block
- (3) control (4) clut

(5) relinquish

#### 103. Achieved

- (1) accomplished
- (2) fanatic
- (3) lost
- (4) undone
- (5) destroyed

#### 104. Recognised

- (1) nominated
- (2) affiliated
- (3) felicitated
- (4) derecognised
- (5) unknown

#### 105. Suburb

- (1) proper (2) outskirts
- (3) centre (4) outside
- (5) internal

#### 106. Commercial

- (1) spirit (2) spiritual
- (3) local (4) heavenly
- (5) governmental

## TEST-III MATHEMATICS

**Directions (107-134): What should come in place of question mark (?) in the following questions?**

$$107. 3025 + 4017 - 312 + \sqrt{289}$$

- (1) 6727 (2) 5747

- (3) 7747 (4) 6737

- (5) None of these

$$108. 3\frac{1}{2} + 17\frac{3}{4} + 19\frac{7}{9} + 21\frac{17}{19} - 3\frac{1}{19} = ?$$

$$(1) 57\frac{594}{684} (2) 59\frac{595}{684}$$

$$(3) 61\frac{595}{684} (4) 59\frac{595}{682}$$

- (5) None of these

$$109. \sqrt{441} + \sqrt{841} + 3041 - 3017 = ?$$

- (1) 72 (2) 74

- (3) 64 (4) 84

- (5) None of these

$$110. \frac{31}{47} + \frac{4}{6} + \frac{3}{4} =$$

$$(1) 2\frac{39}{88} (2) 3\frac{140}{188}$$

$$(3) 1\frac{139}{188} (4) 1\frac{39}{87}$$

- (5) None of these

$$111. 891 + 3112 + 4213 - 302 = ?$$

- (1) 7914 (2) 7814

- (3) 7704 (4) 7941

- (5) None of these

$$112. \sqrt{\frac{?}{169}} = \frac{54}{39}$$

- (1) 108 (2) 324

- (3) 2916 (4) 4800

- (5) None of these

$$113. \frac{\sqrt{32} + \sqrt{48}}{\sqrt{8} + \sqrt{12}} = ?$$

- (1)  $\sqrt{2}$  (2) 2

- (3) 4 (4) 8

- (5) None of these

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114.  $\sqrt{15612} + \sqrt{154} + \sqrt{225} = ?$

- (1) 13                   (2) 15  
 (3) 25                   (4) 125  
 (5) None of these

$$\frac{\frac{1}{5} + \frac{1}{5}}{5} \text{ of } \frac{1}{5} = ?$$

- (1) 1                   (2)  $\frac{1}{25}$   
 (3) 25                   (4) 125  
 (5) None of these

116.  $410 \div 18 \times 4 + 10 + 2 = ?$

- (1) 96.11               (2) 96.22  
 (3) 95.11               (4) 97.11  
 (5) None of these

117.  $751 \times 520 + 321 \times 40 \div 10 = ?$

- (1) 381804             (2) 391804  
 (3) 371805             (4) 361806  
 (5) None of these

118.  $\frac{32 \times 34 + 36 + 2 - 3}{18 \times 2 + 2 + 2} = ?$

- (1) 58.15               (2) 54.15  
 (3) 55.15               (4) 59.15  
 (5) None of these

119.  $\frac{880 + 320 - 42}{31 + 4 + 6} = ?$

- (1) 28.24               (2) 29.24  
 (3) 28.42               (4) 29.42  
 (5) None of these

120.

$540 + 1002 - 30 \times 104 \div 13 = ?$

- (1) 13001               (2) 12002  
 (3) 13012               (4) 1300  
 (5) None of these

121.  $2009 \div 3 + 580 \times 13 \div 26 = ?$

- (1) 759.66             (2) 689.66  
 (3) 959.66             (4) 859.66  
 (5) None of these

122.

$220\% \text{ of } 480 + 30\% \text{ of } 960 = ?$

- (1) 1344               (2) 1244  
 (3) 1444               (4) 1544

(5) None of these

123.  $\frac{3\% \text{ of } 300 + 4\% \text{ of } 40}{2} = ?$

- (1) 6.3               (2) 5.3  
 (3) 7.3               (4) 8.3  
 (5) None of these

(5) None of these

131.  $5213 + 4312 + 3112 + 4412 - 6103 = ?$

- (1) 10946             (2) 10046  
 (3) 19946             (4) 11946  
 (5) None of these

132.  $880 + 420 + 333 + 122 + 5023 = ?$

- (1) 6778               (2) 6678  
 (3) 6668               (4) 6788  
 (5) None of these

133.  $30.12 + 21.45 + 17.21 + 19.42 = ?$

- (1) 89.29             (2) 88.29  
 (3) 87.29             (4) 86.29  
 (5) None of these

134.

$\frac{1}{2} \text{ of } 2505 + 20\% \text{ of } 160 = ?$

- (1) 501000             (2) 501000  
 (3) 502000             (4) 501002  
 (5) None of these

135. The sum of the numerator and denominator of a fraction is 11. If 1 is added to the numerator and 2 is subtracted from the denominator, it becomes  $\frac{2}{3}$ . The fraction is

127.  $\frac{6}{\sqrt{?}} = \frac{36}{6}$

- (1) 1                   (2) 11  
 (3) 2                   (4) 3  
 (5) None of these

128.

$88888 + 8888 + 888 + 88 + 8 = ?$

- (1) 98760             (2) 99760  
 (3) 97670             (4) 99670  
 (5) None of these

- (1)  $\frac{1}{6}$                (2)

- (3)                   (4)

(5) None of these

129.  $3\frac{1}{2} + 4\frac{1}{2} + 6\frac{3}{4} + 11\frac{7}{8} - 2\frac{1}{8} = ?$

- (1)  $24\frac{1}{2}$              (2)  $24\frac{1}{2}$   
 (3)  $24\frac{3}{2}$              (4)  $24\frac{4}{9}$   
 (5) None of these

136. The difference between two numbers is 1365. When larger number is divided by the smaller one, the quotient is 6 and the remainder is 15. The smaller number is

- (1) 240               (2) 360  
 (3) 270               (4) 295  
 (5) None of these

137. The average age of an adult class is 40 years. Twelve new students with an average age of 32 years join the class, thereby decreasing the average of the class by 4 years. The original strength of the class was

- (1) 10      (2) 11  
 (3) 12      (4) 15  
 (5) None of these

138. In an examination, 1100 boys and 900 girls appeared. 50% of the boys and 40% of the girls passed the examination. The percentage of candidates failed is

- (1) 45      (2) 45.5  
 (3) 54.5      (4) 59.2  
 (5) None of these

139. If  $x\%$  of a is the same as  $y\%$  of b, then  $z\%$  of b is

- (1)  $\frac{yz}{x}\%$  of a      (2)  $\frac{xy}{z}\%$  of a  
 (3)  $\frac{xz}{y}\%$  of a      (4)  $\frac{xy}{z}\%$  of a

- (5) None of these

140. An article when sold at a gain of 5% yields Rs. 15 more than when sold at a loss of 5%. What is the C.P.?

- (1) Rs. 64      (2) Rs. 80  
 (3) Rs. 150      (4) Rs. 200  
 (5) None of these

141. A single discount equivalent to a discount series of 30%, 20% and 10% is

- (1) 15%      (2) 49.6%  
 (3) 49.4%      (4) 51%  
 (5) None of these

142. If  $x : y = 5 : 2$ , then the value of  $(8x + 9y) : (8x + 2y)$  is

- (1) 26 : 61  
 (2) 61 : 26  
 (3) 29 : 22  
 (4) 22 : 29  
 (5) None of these

143. If  $\frac{x}{5} = \frac{y}{8}$ , then  $(x + 5) : (y +$

8) is equal to

- (1) 3 : 5      (2) 13 : 8  
 (3) 8 : 5      (4) 5 : 8  
 (5) None of these

144. A, B, C hire a meadow for Rs. 1095. If A puts in 10 cows for 20 days; B 30 cows for 8 days and C 18 cows for 9 days, then the rent paid by C is

- (1) Rs. 270      (2) Rs. 320  
 (3) Rs. 450      (4) Rs. 285  
 (5) None of these

145. If 20 men can build a wall 56 metres long in 6 days, what length of a similar wall can be built by 35 men in 3 days?

- (1) 49 metres      (2) 39 metres  
 (3) 59 metres      (4) 69 metres  
 (5) None of these

146. A can do a piece of work in 30 days while B alone can do it in 40 days. In how many days can A and B working together do it?

- (1)  $17\frac{1}{7}$       (2)  $27\frac{1}{7}$

- (3)  $42\frac{3}{4}$       (4) 70

- (5) None of these

147. A, B and C together earn Rs. 300 per day, while A and C together earn Rs. 188 and B and C together earn Rs. 152. The daily earning of C is

- (1) Rs. 150      (2) Rs. 112  
 (3) Rs. 68      (4) Rs. 40  
 (5) None of these

148. Two pipes A and B can fill a tank in 6 hours and 4 hours respectively. If they are opened on alternate hours and if pipe A is opened first, in how many hours, the tank shall be full?

- (1) 4      (2) 6  
 (3)  $4\frac{1}{2}$       (4)  $5\frac{1}{2}$

- (5) None of these

149. A car completes a certain journey in 8 hours. It covers half the distance at 40 kmph and the rest at 60 kmph. The total distance of the journey is

- (1) 350 km      (2) 384 km  
 (3) 400 km      (4) 420 km

- (5) None of these

150. A train 100 metres long takes 6 seconds to cross a man walking at 5 kmph in a direction opposite to that of the train. Find the speed of the train.

- (1) 55 kmph      (2) 60 kmph  
 (3) 50 kmph      (4) 45 kmph  
 (5) None of these

151. A man can row 8 kmph in still water and the river is running at 2 kmph. If the man takes 1 hour to row to a place and back, how far is the place?

- (1) 3.75 km      (2) 4.75 km  
 (3) 5.0 km      (4) 3.00 km  
 (5) None of these

152. A sum of Rs. 312 was divided among 100 boys and girls in such a way that each boy gets Rs. 3.60 and each girl Rs. 2.40. The number of girls is

- (1) 40      (2) 60  
 (3) 35      (4) 65  
 (5) None of these

153. At what rate percent per annum will a sum of money double in 8 years?

- (1) 12.5%      (2) 12%  
 (3) 13%      (4) 15%  
 (5) None of these

154. If each side of square is increased by 25%, its area is increased by

- (1) 25%      (2) 50%  
 (3) 40.5%      (4) 56.25%  
 (5) None of these

155. A man walking at the speed of 4 kmph crosses a square field diagonally in 3 minutes. The area of the field is

- (1)  $18000 \text{ m}^2$   
 (2)  $20000 \text{ m}^2$   
 (3)  $19000 \text{ m}^2$   
 (4)  $25000 \text{ m}^2$   
 (5) None of these

Directions (156-159) : In the following questions a number series is given in which one number is wrong. In the series. Find that wrong number.

156. 22, 33, 66, 99, 121, 279, 594

- (1) 33      (2) 121  
 (3) 279      (4) 594  
 (5) None of these

157. 36, 54, 18, 27, 9, 18.5, 4.5

- (1) 4.5      (2) 18.5  
 (3) 54      (4) 18  
 (5) 9

158. 582, 605, 588, 611, 634, 617, 600

- (1) 634      (2) 611  
 (3) 605      (4) 600  
 (5) 617

159. 1, 8, 27, 64, 124, 216, 343

- (1) 8      (2) 27  
 (3) 64      (4) 124  
 (5) 216

**TEST-IV**  
**CLERICAL APTITUDE**

**Directions (160-197) :** In each of the following questions a combination of name and address is given in the first column at the left followed by four such combinations, one each under the columns (1), (2), (3) and (4). You have to find out the combination which is exactly the same as the combination given in the first column. The number of that column which contains the correct combination is the answer. If there is no column with correct combination the answer is (5).

	(1)	(2)	(3)	(4)	(5)
160. Ansal Buildwell 7 Tolstoy Marg New Delhi-110001 Ph : 335051	Ansal Buildwell 7 Tolstoy Marg New Delhi-110002 Ph : 335051	Ansal Buildwell 7 Tolstoy Marg New Delhi-110001 Ph : 335051	Ansal Buildwell 7 Tolstoy Marg New Delhi-110001 Ph : 335051	Ansal Buildwell 7 Tolstoy Marg New Delhi-110001 Ph : 335001	None
161. Dr. Gopal Das 16th Floor, DGK- 28, Barakhamba Rd. New Delhi-110001	Dr. Gopal Das 16th Flor, DGK 28, Barakhamba Rd. New Delhi-110001	Dr. Gopal Das 16th Floor, DGK 28, Barakhamba Rd. New Delhi-110001	Dr. Gopal Das 16th Floor, DGK 28, Barakhamba Rd. New Delhi-110001	Dr. Gopal Das 16th Floor, DGK 28, Barakhamba Rd. New Delhi-110001	None
162. Ajay Enterprises F-16, Bajaj House 97, Nehru Place Ph : 6432524	Ajay Enterprises F-16, Bajaj House 97, Nehru Place Ph : 6432524	Ajay Enterprises F-16, Bajaj House 99, Nehru Place Ph : 6432524	Ajay Enterprises F-16, Bajaj House 97, Nehru Plac Ph : 6432524	Ajay Enterprises F-16, Bajaj House 97, Nehru Place Ph : 6432524	None
163. Royale Groups Prakash Deep Building, 1st Floor Lucknow-26	Royale Groups Prakash Deep Building, 1st Floor Lucknow-26	Royal Groups Prakash Deep Building, 1st Floor Lucknow-26	Royale Groups Prakash Deep Building, 1st Floor Lucknow-20	Royale Groups Prakash Deep Building, 1st Floor Lucknow-26	None
164. Mr. PK Gangwar General Manager Sriganganager Rajasthan-19	Mr. PK Gangwar General Manegeer Sriganganagar Rajasthan-19	Mr. PK Gangwar General Manager Sriganganagar Rajasthan-10	Mr. PK Gangwar General Manager Sriganganagar Rajasthan-19	Mr. PK Gangwar General Manager Sriganganager Rajasthan-19	None
165. Prem Lal Sharma Harvard Business System & Makers Saharanpur (UP)	Prem Lal Sharma Harvard Business System & Makers Saharanpur (MP)	Prem Lal Sharma Harvard Busines System & Makers Saharanpur.(UP)	Prem Lal Sharma Harvard Business System & Maker Saharanpur (UP)	Prem Lal Sharma Harvard Business System & Makers Saharanpur (UP)	None
166. Selica Globe Computer Training and Managément Moradabad (UP) Tel : 310967	Selica Globe Computer Training and Management Moradabad (UP)	Selica Globe Compoter Training and Management Moradabad (UP)	Selica Globe Computer Training and Management Moodababad (UP)	Selica Globe Computer Training and Management Moradabad (UP)	None
167. Jasdeep S. Bindra 117-E/P Block Vijalpur City Guna-473111 Madhya Pradesh	Jasdeep S. Bindra 117-F/P Block Vijalpur City Guna-473111	Jasdeep S. Bindra 117-E/P Block Vijalpur City Guna-473111	Jasdeep S. Bindra 127-E/P Block Vijalpur City Guna-473111	Jasdeep S. Bindra 117-E/P Block Vijalpur City Guna-473112	None
168. Priyanka Dhingra 17 Pusa Road New Delhi-110025 Tel : 5719990	Priyanka Dhingra 17 Pusa Rod New Delhi-110025	Priyanka Dhingra 17 Pusa Road New Delhi-110065	Priyanka Dhingra 17 Pusa Road New Delhi-110025	Priyanka Dhingra 17 Pusa Road New Delhi-110025	None
169. B.S. Bhatnager P.O. : Marar Pin : 829117 Hazaribagh	B.S. Bhatnager P.O. : Marar Pin : 829127	B.S. Bhatnager P.O. : Marar Pin : 829117	B.S. Bhatnager P.O. : Marar Pin : 839117	B.S. Bhatnager None P.O. : Marer Pin : 829117	None
170. Dharamvir Singh GMS Road Dehradun (UP) Tel : 720596	Dharamvir Singh GMS Road Dehradon (UP)	Dharamvir Singh GNS Road Dehradun (UP)	Dharamvir Singh GMS Road Dehradun (UP)	Dharamvir Singh GMS Road Dehradun (UP)	None
171. R. K. Swamy B-614 Nehru Ground, NIT Faridabad-121001	R. K. Swamy B-614 Nehru Ground, NIT	R.L. Swamy B-614 Nehru Ground, NIT	R. K. Swamy B-674 Nehru Ground, NIT	R. K. Swamy B-614 Nehru Ground, NTT	None
	Faridabad-121001	Faridabad-121001	Faridabad-121001	Faridabad-121001	

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172.	Ms. Claudia Schiffer				
	59/3 Raipur Marg	59/3 Raipur Marg	59/3 Raipur Marg	59/3 Raipur Marg	59/4 Raipur Marg
	Dehradun-248001	Dehradun-248001	Dehradun-248001	Dehradun-248001	Dehradun-248001
	Tel : 746720				
173.	Ram Avtar Shastri				
	Sanjay Place				
	M. Gandhi Marg	M. Gandhi Marg	M. Gandhi Marg	M. Gandhi Marg	M. Gandhi Mag
	Agra-282002	Agra-282002	Agra-282002	Agra-282002	Agra-282002
174.	Mr. Karuna Ambani				
	41, Navyug Mkt.				
	Ghaziabad-201001	Ghaziabad-201001	Ghaziabad-201001	Ghaziabad-201001	Ghaziabad-201001
	Tel : 790366				
175.	Jeevan Prakash	Jeevan Prakash	Jeevan Prakash	Jeevan Prakas	Jeevan Prakash
	Singhani Gate	Singhani Gat	Singhani Gate	Singhani Gate	Singhani Gate
	Saharanpur Road				
	Dehradun-248003	Dehradun-248003	Dehradun-248003	Dehradun-248003	Dehradun-248009
176.	Merguerita Choy				
	229 MG Road	222 MG Road	229 MG Road	229 MG Road	229 MG Road
	P.O. Dil Khusha	P.O. Dil Khusha	P.O. Dil Khush	P.O. Dil Khusha	P.O. Dil Khusha
	Lucknow-226002	Lucknow-226002	Lucknow-226002	Lucknow-226002	Lucknow-226062
177.	K.N. Raghavendra				
	Computer Plaza				
	Vishakhapatnam	Vishakhapatnam	Vishakhapatnan	Vishakhapatnam	Vishakhapatnam
	Andhra-530012	Andhra-530912	Andhra-530012	Andhra-534012	Andhra-530012
178.	Ms. Rachna Burman				
	800 Maaligai	808 Maaligai	800 Maaligai	800 Maaligai	800 Maaligai
	Anna Salai				
	Chennai-60002	Chennai-60002	Chennai-60002	Chennai-60092	Chennai-60002
179.	Inder Sawhney				
	Kagithapuram	Kagithapuram	Kagithapuram	Kagithapuram	Kagithapram
	Karur District				
	Pin-539136	Pin-639136	Pin-639166	Pin-639936	Pin-639136
180.	Sushil K. Batra	Sushil K. Batra	Sushil M. Batra	Sushil K. Batra	Sushil K. Batra
	Mayank Computer				
	Indiranagar	Indiranagar	Indiranagar	Indiranager	Indiranagar
	Bangalore-560038	Bangalore-560038	Bangalore-560038	Bangalore-560038	Bangalore-560088
181.	Info-X Software	Indo-X Software	Info-X Software	Info-X Software	Info-X Software
	AB-8, 1st Floor	AB 8, 1st Floor	AB-8, 1st Floor	AC-8, 1st Floor	AB-8, 1st Floor
	Safdarjung Enclave				
	New Delhi-110029	New Delhi-110029	New Delhi-110029	New Delhi-110029	New Delhi-110039
182.	Mrs. Harinder Basur				
	B5/7, Ramesh Nagar	B4/7, Ramesh Nagar	B5/7, Ramesh Nagar	B5/7, Ramesh Nagar	B5/7, Ramesh Nagar
	Raja Garden	Raja Garden	Raj Garden	Raja Garden.	Raja Garden
	Ph : 5101397	Ph : 5101397	Ph : 5101397	Ph : 5101397	Ph : 5101307
183.	Miss Ruchi Singh				
	E-13, Hauz Khas	E-14, Hauz Khas	E-13, Hauz Khas	E-13, Hauz Khas	E-13, Hauz Khas
	Main Market				
	Ph : 6865663	Ph : 6865663	Ph : 6865693	Ph : 6865693	Ph : 6865663
184.	Mr. Navneet Anand				
	Anuyogipuram	Anuyogipura	Anuyogipuram	Anuyogipuram	Anuyogipuram
	Garh Rođ. Meerut	Garh Road, Meerut	Garh Road, Meert	Garh Road, Meerut	Garh Road, Meerut
	Ph : 021-780396	Ph : 021-780396	Ph : 021-780396	Ph : 021-780396	Ph : 021-780096
185.	Radha Mohan Sen				
	NH-24, Delhi-Hapur	NH-25, Delhi-Hapur	NH-24, Delhi-Hapur	NH-24, Delhi-Hapur	NH-24, Delhi-Hapur
	Bypass Road, 27	Bypass Road, 27	Bypass Road, 28	Bypass Road, 27	Bypass Road, 27
	Ghaziabad (UP)				

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186. Monalisa Sengupta ITIM, 16/79 F-Civil Lines Kanpur (UP)	Monalisa Sengupta ITIM, 16/79 F-Civil Lines Kanpur (UP)	Monalisa Sengupta ITMM, 16/79 F-Civil Lines Kanpur (UP)	Monalisa Sengupta ITIM, 16/70 F-Civil Lines Kanpur (UP)	Monalisa Sengupta ITIM, 16/79 F-Civil Line Kanpur (UP)	Monalisa Sengupta None
187. Harshita Ghai DVIMS 4, Old Survey C. School Dehradun (UP)	Harshita Ghai DVIMS 4, Odd Survey C. School Dehradun (UP)	Harshita Ghai DVIMS 4, Old Survey C. School Dehradun (UP)	Harshita Ghai DVIMS 4, Old Survey P. School Dehradun (UP)	Harshita Ghai DVIMS 4, Old Survey C. School Dehradun (UP)	None
188. Bioinformatics Pune University Ganeshkhind-III Pune-411007 Fax : 5679264	Bioinformatics Pune University Ganeshkhind-III Pune-411007 Fax : 5679264	Bioinformatics Pune University Ganeshkhind-III Pune-411007 Fax : 5679264	Bioinformatics Pune University Ganeshkhind-II Pune-411007 Fax : 5679264	Bioinformatics Pune University Ganeshkhind-III Pune-411000 Fax : 5679264	None
189. Ms. Shilpa Bhave 1, Club Road Kharagpur (W.B.) Pin-721302	Ms. Shilpa Bhave 1, Club Road Kharagpur (W.B.) Pin-721300	Ms. Shilpa Bhave 1, Club Road Kharagpur (W.B.) Pin-721302	Ms. Shilpa Bhave 1, Club Road Kharagpur (W.B.) Pin-721302	Ms. Shilpa Bhave 1, Club Road Kharagpur (W.B.) Pin-721302	None
190. Centre for Mgt. Development Modinagar, UP Pin-201204	Centre for Mgt. Development Modinagar, MP Pin-201204	Centre for Mgt. Development Modinagar, UP Pin-201294	Centre for Mgt. Development Modinagar, UP Pin-200204	Centre for Mgt. Development Modinagar, UP Pin-201204	None
191. Nand Kishore Rai 603, Anna Salai Post Box No. 488 Chennai-600006	Nand Kishore Rai 603, Anna Salai Post Box No. 488 Chennai-600006	Nand Kishore Rai 603, Anna Salai Post Box No. 489 Chennai-600006	Nand Kishore Rai 603, Anna Salai Post Box No. 488 Chennai-60006	Nand Kishore Rai 603, Anna Salai Post Box No. 488 Chennai-60006	None
192. Surendra Singh Mayur Enclave Vihar Lake-41/7 Mumbai-400087	Surendra Singh Mayur Enclave Vihar Lake-41/8 Mumbai-400087	Surendra Singh Mayur Enclave Vihar Lake-41/7 Mumbai-400077	Surendra Singh Mayur Enclave Vihar Lake-41/7 Mumbai-400087	Surendra Singh Mayur Enclave Vihar Lake-41/7 Mumbai-400087	None
193. Sanjeev Duggal B-278, Cr Park New Delhi-110019 Phone : 6460993	Sanjeev Duggal B-278, Cr Park New Delhi-110019 Phone : 6460993	Sanjeev Dugal B-278, Cr Park New Delhi-110019 Phone : 6460993	Sanjeev Duggal B-279, Cr Park New Delhi-110019 Phone : 6460993	Sanjeev Duggal B-278, Cr Park New Delhi-110029 Phone : 6460993	None
194. Vandana Dutt 1335, Double Rd. 14 Tolstoy Square Chandigarh	Vandana Dutt 1336, Double Rd. 14 Tolstoy Square Chandigarh	Vandana Dutt 1335, Double Rd. 14 Tolstoy Square Chandigarh	Vandana Dutt 1335, Double Rd. 14 Tolstoy Square Chandigarh	Vandana Dutt 1335, Double Rd. 14 Tolstoy Square Chandigarh	None
195. Ms. Shruti Gupta PG Softech Pvt. Limited, Jaipur Tel : 231016	Ms. Shruti Gupta PG Softech Pvt. Limited, Jaipur Tel : 231916	Ms. Shruti Gupta PG Softech Pvt. Limited, Jaipur Tel : 231016	Ms. Shruti Gupta PG Softech Pvt. Limited, Jaipur Tel : 231066	Ms. Shruti Gupta PG Softech Pvt. Limited, Jaipur Tel : 231016	None
196. Mr. BS Manjunath Swadeshi Estate Private Limited Ahmedabad-29	Mr. BS Manjunath Swadeshi Estate Private Limited Ahmedabad-29	Mr. BS Manjunath Swadeshi Estate Private Limited Ahmedabad-29	Mr. BS Manjunath Swadeshi Estate Private Limited Ahmedabad-29	Mr. BS Manjunath Swadeshi Estate Private Limited Ahmedabad-39	None
197. Nancy Karrigen 395, Patparganj Delhi-110092 Ph : 2162166	Nancy Karrigen 395, Patparganj Delhi-110092 Ph : 2162166	Nancy Karrigen 390, Patparganj Delhi-110092 Ph : 2162166	Nancy Karrigen 395, Patparganj Delhi-110092 Ph : 2162666	Nancy Karrigen 395, Patparganj Delhi-110092 Ph : 2162166	None

**Directions (198-212) : Study the following table carefully and answer the questions given below it :**

**Distance in km between the given cities**

Name	Delhi	Jaipur	Chandigarh	Kanpur	Lucknow	Surat	AI	Allahabad	Varanasi	Gwalior	Bhopal	Indore
Delhi	250	400	450	750	810	800	890	560	750	870		
Jaipur	—	650	550	850	410	990	1080	575	775	925		
Chandigarh		—	925	1215	1115	1220	1310	940	1150	1230		
Kanpur			—	300	670	550	650	890	1100	1290		
Lucknow				—	480	795	865	1010	1300	1400		
Surat					—	1200	1290	760	970	1040		
Allahabad						—	90	860	980	1210		
Varanasi							—	990	1070	1260		
Gwalior								—	650	820		
Bhopal									—	290		
Indore										—		

**Directions (195-202) :** In each of the following questions the names of two places are given in bold. Find out the distance between these two places in kilometres.

**198. Kanpur, Surat**

- (1) 480      (2) 550  
 (3) 670      (4) 410  
 (5) None of these

**199. Delhi, Gwalior**

- (1) 400      (2) 450  
 (3) 750      (4) 560  
 (5) None of these

**200. Chandigarh, Indore**

- (1) 1230      (2) 1290  
 (3) 1150      (4) 1400  
 (5) None of these

**201. Lucknow, Bhopal**

- (1) 1400      (2) 1300  
 (3) 1080      (4) 1210  
 (5) None of these

**202. Allahabad, Indore**

- (1) 1080      (2) 1260  
 (3) 1290      (4) 1210  
 (5) None of these

**Directions (203-207) :** In each of the following questions distance in kilometres is followed by pair of places given as alternatives. Identify the pair of places having the given distance between them.

**203. 670**

- (1) Kanpur-Gwalior  
 (2) Kanpur-Surat  
 (3) Chandigarh-Jaipur  
 (4) Bhopal-Indore  
 (5) None of these

**204. 1010**

- (1) Chandigarh-Allahabad  
 (2) Gwalior-Kanpur  
 (3) Allahabad-Indore  
 (4) Lucknow-Gwalior  
 (5) None of these

**205. 775**

- (1) Jaipur-Bhopal  
 (2) Jaipur-Lucknow  
 (3) Allahabad-Gwalior  
 (4) Jaipur-Indore  
 (5) None of these

**206. 810**

- (1) Delhi-Indore  
 (2) Delhi-Surat  
 (3) Gwalior-Indore  
 (4) Jaipur-Bhopal  
 (5) None of these

**207. 1310**

- (1) Lucknow-Bhopal  
 (2) Varanasi-Indore  
 (3) Chandigarh-Varanasi  
 (4) Surat-Varanasi  
 (5) None of these

**Directions (208-212) :** Which of the following cities is the farthest from the given city?

**208. Lucknow**

- (1) Indore  
 (2) Bhopal  
 (3) Varanasi  
 (4) Chandigarh  
 (5) None of these

**209. Jaipur**

- (1) Allahabad  
 (2) Indore  
 (3) Varanasi  
 (4) Lucknow  
 (5) None of these

**210. Surat**

- (1) Allahabad (2) Indore  
 (3) Bhopal (4) Varanasi  
 (5) None of these

**211. Kanpur**

- (1) Bhopal (2) Indore  
 (3) Chandigarh  
 (4) Allahabad  
 (5) None of these

**212. Bhopal**

- (1) Indore (2) Allahabad  
 (3) Varanasi (4) Lucknow  
 (5) None of these

**SHORT ANSWERS**

1. (3)    2. (3)    3. (1)    4. (2)  
 5. (3)    6. (4)    7. (2)    8. (4)  
 9. (1)    10. (3)    11. (2)    12. (3)  
 13. (4)    14. (1)    15. (3)    16. (2)  
 17. (2)    18. (4)    19. (3)    20. (2)

21. (3)    22. (2)    23. (4)    24. (2)  
 25. (3)    26. (4)    27. (1)    28. (1)  
 29. (4)    30. (1)    31. (3)    32. (4)  
 33. (2)    34. (5)    35. (3)    36. (2)  
 37. (1)    38. (4)    39. (5)    40. (2)  
 41. (4)    42. (1)    43. (3)    44. (5)  
 45. (3)    46. (4)    47. (3)    48. (2)  
 49. (3)    50. (4)    51. (2)    52. (5)  
 53. (3)    54. (2)    55. (1)    56. (3)  
 57. (4)    58. (1)    59. (5)    60. (3)  
 61. (2)    62. (3)    63. (4)    64. (5)  
 65. (2)    66. (4)    67. (1)    68. (4)  
 69. (2)    70. (2)    71. (1)    72. (2)  
 73. (1)    74. (1)    75. (1)    76. (5)  
 77. (3)    78. (1)    79. (1)    80. (4)  
 81. (2)    82. (4)    83. (3)    84. (2)  
 85. (2)    86. (1)    87. (2)    88. (4)  
 89. (4)    90. (2)    91. (1)    92. (3)  
 93. (2)    94. (2)    95. (4)    96. (3)  
 97. (2)    98. (2)    99. (3)    100. (1)  
 101. (2)    102. (2)    103. (3)    104. (4)  
 105. (1)    106. (2)    107. (1)    108. (2)  
 109. (2)    110. (3)    111. (1)    112. (2)  
 113. (2)    114. (4)    115. (1)    116. (1)  
 117. (2)    118. (3)    119. (1)    120. (5)  
 121. (3)    122. (1)    123. (2)    124. (5)  
 125. (1)    126. (3)    127. (1)    128. (1)  
 129. (2)    130. (1)    131. (1)    132. (1)  
 133. (2)    134. (1)    135. (3)    136. (3)  
 137. (3)    138. (3)    139. (3)    140. (3)  
 141. (2)    142. (3)    143. (4)    144. (1)  
 145. (1)    146. (1)    147. (4)    148. (2)  
 149. (2)    150. (1)    151. (1)    152. (1)  
 152. (1)    154. (4)    155. (2)    156. (3)  
 157. (2)    158. (1)    159. (4)    160. (3)  
 161. (2)    162. (4)    163. (1)    164. (3)  
 165. (4)    166. (1)    167. (2)    168. (4)  
 169. (2)    170. (3)    171. (1)    172. (2)  
 173. (1)    174. (4)    175. (2)    176. (3)  
 177. (4)    178. (2)    179. (1)    180. (1)  
 181. (2)    182. (3)    183. (4)    184. (3)  
 185. (3)    186. (1)    187. (2)    188. (2)  
 189. (2)    190. (4)    191. (3)    192. (4)  
 193. (1)    194. (3)    195. (4)    196. (2)  
 197. (4)    198. (3)    199. (4)    200. (1)  
 201. (2)    202. (4)    203. (2)    204. (4)  
 205. (1)    206. (2)    207. (3)    208. (1)  
 209. (3)    210. (4)    211. (2)    212. (4)

**ANSWERS WITH EXPLANATION**

**REASONING**

(1-6) : On the basis of the given information and conclusions and sub-conclusions drawn from them we can construct the following table :

Person	Sex	Profession	Relationship
1.	Female	Teacher	Wife of B, Mother of C and E
2.	Male	Businessman	Father of C and E, Husband of A
3.	Female	Student	Daughter of A and B
4.	Female	Doctor	Grandmother of C and E
5.	MF	Student	Son/Daughter of A and B
6.	Male	Sharebroker	Grandfather of C and E, Husband of D, Father of B.

**Note :**

- (i) The two married couples are : B and DF.
- (ii) B is the son D and F.
- (iii) C and E are children of A and D.
- (iv) A is the daughter-in-law of D and F.
- (v) The sex of E cannot be determined.

7.(2) Brother of Rahul's wife means brother-in-law of Rahul. Son of lady's only brother is the brother-in-law of Rahul. Therefore, lady's brother is the brother-in-law of Rahul.

Thus, the lady is the sister of Rahul's father-in-law.



Thus, there are five such pairs of letters.

8.(1) 1 2 3 4 5 6 7 8 9 10  
REL INQUI SH

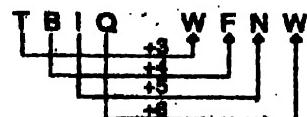
Specified letter → L, N, U, S, H

No meaningful word can be formed using these letters.

10.(3)



Similarly,



11.(2) M R S

R S M K R S R [M R S] K N R S  
P S R M K [M R S] R M S N K S  
[M R S] R S M R P

Thus, there are three such Rs.  
12.(3) P × Q → P is the daughter of Q.

Q - R → Q is the wife of R.

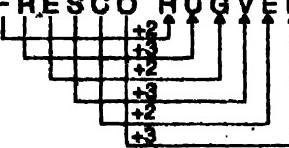
R + S → R is the son of S.

**Deductions**

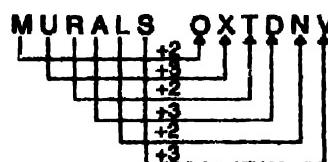
- (i) R is the husband of Q.
- (ii) Q is the mother of P.
- (iii) Q is the daughter-in-law of S.
- (iv) S is either father or mother of R.
- (v) S is either grandfather or grandmother of P.

(The sex of S is not clear).

13.(4) F R E S C O H U G V E R



Similarly,



14.(1) Alphabetical order

A G I I L [M] N N O T Y

↓  
Middle element

15.(3) Given expression

80 £ 8 \$ 7 @ 3 © 14 = ?

After conversion

? = 80 ÷ 8 + 7 × 3 - 14

or, ? = 10 + 21 - 14 = 17

16.(2) Both the premises are already aligned.

All books are pens.

No pen is ink.

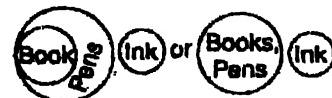
We know that,

A + E → E type conclusion

Thus, our derived conclusion would be :

"No book is ink".

Venn-Diagram



17.(2) P L U M A G E  
↓ ↓ ↓ ↓ ↓ ↓  
© % + £ © # \$

18.(4) Keyword

1 2 3 4 5 6  
sem lik pie gee tik ano

Password

6 1 2 5 4 3  
ane sem lik tik gee pie

Similarly,

Keyword  
1 2 3 4 5 6  
bis kar cen mic sik jen

Password

6 1 2 5 4 3  
jen bis kar sik mic cen

19.(3) According to Deepak his sister's birthday may be on either 9th or 10th December.

According to Deepak's mother his daughter's birthday may be on either 11th, 12th, 13th or 14th December. Common date → 11th December.

20.(2)

□ ⊕ → Red and Blue

% ⊕ # → Blue Green Colour

□ % £ → Green and White

Thus, code for Red → □

(21-26) :

(i) There are 26 elements in the sequence.

(ii) There are 18 letters.

(iii) There are 4 numbers.

(iv) There are 4 symbols.

(v) The middle pair of elements is S #.

21.(3) TRICK :

Required element = 13 - 6 = 7th element from your right end

7th element from right → □

22.(2) The new sequence would be :

SA7GLPD © MR5TB#NC3E ...  
8th to left of C

23.(4) 8th element from left → P  
11th element from right → C

**TARGET SET FOR BANK & RBI CLERICAL EXAM**

Remaining elements between P and C

L G 7 S # N

Middle element

$$24.(3) R \xrightarrow{+2} O \xrightarrow{+2} P \xrightarrow{+2} G \\ G \xrightarrow{+3} S \xrightarrow{+3} C \xrightarrow{+3} E \\ \# \xrightarrow{+4} E \xrightarrow{+4} J \xrightarrow{+4} Z$$

25.(2) Remaining elements

BT5RM@DPL7SN3£K9U

Letters → 11

Numbers → 4

Symbols → 2

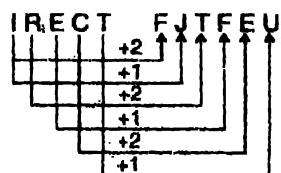
$$26.(4) M \xrightarrow{+4} L \xrightarrow{+2} 7$$

$$A \xrightarrow{+4} C \xrightarrow{+2} E$$

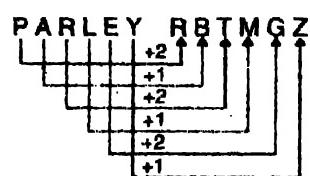
$$T \xrightarrow{+4} @ \xrightarrow{+2} P$$

$$\boxed{S \xrightarrow{+5} E \xrightarrow{+3} K}$$

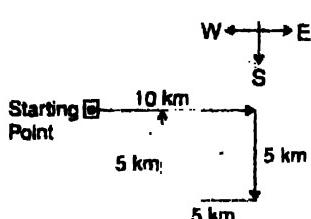
$$N \xrightarrow{+4} £ \xrightarrow{+2} K$$



Similarly,



28.(1)



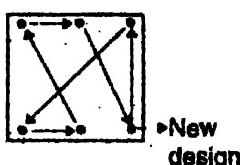
Clearly, Sudha is now 5 km away from the starting point.

29.(4) In the first step one curve is added on the left end of the line segment pushing to the right pre-existing curve and in the second step

one line segment is added. These two steps are repeated alternately.

30.(1) In each subsequent figure the triangle rotates 90° clockwise and one line segment is added. The triangle also moves clockwise through one step.

31.(3) The movement and change in designs in each subsequent figure can be shown as :



32.(4) In each subsequent figure one more leaflet is added in anticlockwise direction at 45° and the entire design rotates 90° clockwise.

33.(2) In each subsequent figure the line segment and dot move clockwise along the side of the main design and the black dot comes out of the main design alternately.

**TRICK :** This problem is based on the rule (1) = (5) and hence (2) = (6).

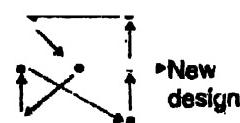
34.(5) In each subsequent figure entire design rotates 90° clockwise and one of arrow-heads is reversed.

35.(3) In each subsequent figure the pre-existing designs move half a step anticlockwise and a new design appears behind the pre-existing designs.

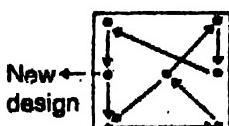
36.(2) In each subsequent figure respectively one, two, three, four, five ... triangles are reversed starting from the bottom triangle.

37.(1) Alternately two and three line segments are added in the subsequent figures to complete the square (s).

38.(4) The movement of designs from Problem Figure (1) to (2) can be shown as :



**From Problem Figure (2) to (3)**



These two steps repeated alternately.

39.(5) The design (#) moves diagonally up and down while all other designs move two steps clockwise and the design which reaches to upper left corner or upper right corner moves to the centre alternately.

40.(2) Alternately one new design is added in front of and behind the pre-existing design(s) and all the designs move half a step anticlockwise.

41.(4) In each subsequent figure one more box is blackened and the shaded part moves clockwise.

42.(1) In each subsequent figure each design moves upward-diagonally and a new design appears at the bottom position.

43.(3) In each subsequent figure the outermost design becomes the middle design and middle design disappears. The innermost design becomes the outermost design and a new design appears at the innermost position.

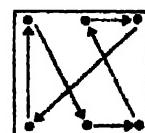
44.(5) In each subsequent figure the designs move half a step clockwise and in the first step the first and the last designs interchange position, in the next step the second and the second last designs and in the third step the two middle designs interchange position.

45.(3) In each subsequent figure respectively two, three, four, five, six ... curves are added in a set order.

46.(4) In each subsequent figure all the designs are reversed and descend stepwise and the bottom design shifts to the top position.

**TRICK :** This problem is based on the rule (1) = (5) and hence (2) = (6).

47.(3) The movement of designs in each subsequent figure can be shown as :



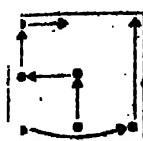
48.(2) Alternately one and two arcs are reversed starting from the top arc in each subsequent figure.

49.(3) From first figure to second figure the design rotates 90° clockwise and is enclosed by a design having

one side less than itself.

50.(4) The second figure is the mirror image of the first figure.

51.(2) The movement of designs from first figure to second figure can be shown as :



52.(5) The vertical line segment rotates 45° clockwise and the lower design is replaced by a new one. The other line segment rotates 90° clockwise.

53.(3) The second figure is the left equal half of the first figure.

#### ENGLISH

55.(1) Use article 'A'; before 1% because the pronunciation of 'O' in one is like consonant, so we use article 'A' before it.

As : a one eyed man, a one act play etc.

56.(3) Change 'few' into 'a few' because 'few' and 'little' have the meaning of nothing. In affirmative sense, we never use 'few' or 'little'.

57.(4) Change 'Sinha's and Singh's into 'Sinha and Singh's because possessive case is used with the last noun. When two nouns are closely related.

As : Sinha and son's shop (close relation or the same shop)

58.(1) Replace 'accused' by 'the accused' because 'accused' is here particularised. So it will take definite article.

59.(5) The sentence is correct.

60.(3) Replace 'the life' by 'life'. We never use definite article before—'life', love, death, society, parliament etc.

61.(2) As the two actions take place at the same time. So the tense should be the same for both of the actions. Hence replace 'he had died' by 'he died'.

62.(3) Change 'not less than' into 'no fewer than'. Remember 'less' is used before uncountable noun while 'fewer' is used before countable noun.

As : No fewer than five persons died.

63.(4) Change 'upliftment' into 'uplift' because 'uplift' is both noun and verb.

64.(5) The sentence is correct.

69.(3) 'Charitable' means bountiful,

donated, alms, liberal etc. In context to the passage the correct synonym will be option (3) here.

100.(1) 'Risk' means danger, peril, hazard, injurious etc. Here the correct synonym for risk is 'major'.

101.(0) 'Visualised' means imagined, concerned, seen, formulated etc. So, here the correct option is (2).

102.(2) 'Supply' means to fill up any deficiency, to furnish what is wanted, provide etc. Here, the correct opposite of supply is 'block'.

103.(3) 'Achieved' means obtained, finished, acquired, reached etc. In reference to the context, the correct antonym will be option (3).

104.(4) 'Recognised' means to know again, to identify as known before to acknowledge validity of etc. But, here, the correct opposite of 'recognised' is in option (4).

#### MATHEMATICS

107.(1)

$$\begin{aligned} ? &= 3025 + 4017 - 312 + \sqrt{289} \\ &= 7042 - 312 + 17 \\ &= 7059 - 312 = 6747 \end{aligned}$$

108.(2) Method I

$$\begin{aligned} ? &= 3\frac{1}{2} + 17\frac{3}{4} + 19\frac{7}{9} + 21\frac{17}{19} - 3\frac{1}{19} \\ &= \frac{7}{2} + \frac{71}{4} + \frac{178}{9} + \frac{416}{19} - \frac{58}{19} \\ &= \frac{2394 + 12141 + 13528 + 14976 - 2088}{684} \\ &= \frac{43039 - 2088}{684} = \frac{40951}{684} \\ &= 59\frac{595}{684} \end{aligned}$$

Method II

$$\begin{aligned} ? &= 3\frac{1}{2} + 17\frac{3}{4} + 19\frac{7}{9} + 21\frac{17}{19} - 3\frac{1}{19} \\ &= (3 + 17 + 19 + 21 - 3) + \\ &\quad \left( \frac{1}{2} + \frac{3}{4} + \frac{7}{9} + \frac{17}{19} - \frac{1}{19} \right) \\ &= (60 - 3) + \\ &\quad \left( \frac{342 + 513 + 532 + 612 - 36}{684} \right) \\ &= 57 + \left( \frac{1999 - 36}{684} \right) \\ &= 57 + \left( \frac{1963}{684} \right) \end{aligned}$$

$$\Rightarrow 57 + 2\frac{595}{684} = 59\frac{595}{684}$$

109.(2)

$$\begin{aligned} ? &= \sqrt{441} + \sqrt{841} + 3041 - 3017 \\ &= 21 + 29 + 3041 - 3017 \\ &= 3091 - 3017 = 74 \end{aligned}$$

$$110.(3) ? = \frac{31}{47} + \frac{4}{6} + \frac{3}{4}$$

$$= \frac{31}{47} \times \frac{6}{4} + \frac{3}{4}$$

$$= \frac{31}{47} \times \frac{3}{2} + \frac{3}{4} = \frac{93}{94} + \frac{3}{4}$$

$$= \frac{186 + 141}{188} = \frac{327}{188}$$

$$= 1\frac{139}{188}$$

$$111.(1) ? = 891 + 3112 + 4213 - 302 \\ = 8216 - 302 = 7914$$

$$112.(2) \sqrt{\frac{?}{169}} = \frac{54}{39}$$

$$\frac{?}{169} = \frac{54 \times 54}{39 \times 39}$$

$$\therefore ? = \frac{54 \times 54 \times 169}{39 \times 39} = 324$$

$$113.(2) ? = \frac{\sqrt{32} + \sqrt{48}}{\sqrt{8} + \sqrt{12}}$$

$$= \frac{4\sqrt{2} + 4\sqrt{3}}{2\sqrt{2} + 2\sqrt{3}}$$

$$= \frac{4(\sqrt{2} + \sqrt{3})}{2(\sqrt{2} + \sqrt{3})} = 2$$

114.(4)

$$? = \sqrt{15612 + \sqrt{154 + \sqrt{225}}}$$

$$= \sqrt{15612 + \sqrt{154 + 15}}$$

$$= \sqrt{15612 + 13} = \sqrt{15625} = 125$$

$$115.(1) ? = \frac{\frac{1}{5} + \frac{1}{5} \text{ of } \frac{1}{5}}{\frac{1}{5} \text{ of } \frac{1}{5} + \frac{1}{5}}$$

$$= \frac{\frac{1}{5} + \frac{1}{5} \times \frac{1}{5}}{\frac{1}{5} \times \frac{1}{5} + \frac{1}{5}}$$

$$= \frac{\frac{1}{5} + \frac{1}{25}}{\frac{1}{25} + \frac{1}{5}}$$

$$= \frac{\frac{26}{25}}{\frac{26}{25}} = \frac{5}{25} \times \frac{25}{5} = 1$$

$$116.(1) ? = 410 \div 18 \times 4 + 10 \div 2$$

$$= \frac{410}{18} \times 4 + \frac{10}{2}$$

$$\begin{aligned}
 &= 22.77 \times 4 + 5 \\
 &= 91.11 + 5 = 96.11 \\
 117.(2) \quad ? &= 751 \times 520 + 321 \times 40 + 10 \\
 &= 751 \times 520 + 321 \times \frac{40}{10} \\
 &= 751 \times 520 + 321 \times 4 \\
 &= 390520 + 1284 = 391804 \\
 118.(3) \quad ? &= \frac{32 \times 34 + 36 + 2 - 3}{18 \times 2 + 2 + 2} \\
 &= \frac{1088 + 18 - 3}{18 + 2} \\
 &= \frac{1106 - 3}{20} \\
 &= \frac{1103}{20} = 55.15 \\
 119.(1) \quad ? &= \frac{880 + 320 - 42}{31 + 4 + 6} \\
 &= \frac{1158}{41} = 28.24
 \end{aligned}$$

$$\begin{aligned}
 120.(5) \quad ? &= 540 + 1002 - 30 \times 104 \div 13 \\
 &= 540 + 1002 - 30 \times \frac{104}{13} \\
 &= 540 + 1002 - 240 = 1302 \\
 121.(3) \quad ? &= 2009 \div 3 + 580 \times 13 + 26 \\
 &= \frac{2009}{3} + \frac{580 \times 13}{26} \\
 &= 669.66 + 290 = 959.66 \\
 122.(1) \quad ? &= 220\% \text{ of } 480 + 30\% \text{ of } 960 \\
 &= \frac{220 \times 480}{100} + \frac{30 \times 960}{100} \\
 &= 22 \times 48 + 3 \times 96 \\
 &= 1056 + 288 = 1344
 \end{aligned}$$

$$\begin{aligned}
 123.(2) \quad ? &= \frac{3\% \text{ of } 300 + 4\% \text{ of } 40}{2} \\
 &= \frac{\frac{3 \times 300}{100} + \frac{4 \times 40}{100}}{2} \\
 &= \frac{3 \times 3 + 4 \times 0.40}{2} \\
 &= \frac{9 + 16}{2} = \frac{10.6}{2} = 5.3 \\
 125.(1) \quad \sqrt{?} + (13)^2 &= 289 \\
 \sqrt{?} &= 289 - (13)^2 \\
 \text{or, } \sqrt{?} &= (17)^2 - (18)^2 \\
 \text{or, } \sqrt{?} &= (17 + 18)(17 - 18) \\
 \text{or, } \sqrt{?} &= 30 \times 4 \\
 \text{or, } ? &= (120)^2 = 14400
 \end{aligned}$$

$$\begin{aligned}
 126.(3) \quad ? &= 8002 + 7003 + 6005 - 2007 \\
 &= 21010 - 2007 = 19003 \\
 127.(1) \quad \frac{6}{\sqrt{?}} &= \frac{36}{6} \\
 \sqrt{?} &= \frac{36}{6} \\
 \therefore ? &= 1 \\
 128.(1) \quad ? &= 88888 + 8888 + 888 + \\
 &88 + 8 = 98760 \\
 129.(2) \quad ? &= 3\frac{1}{2} + 4\frac{1}{2} + 6\frac{3}{4} + 11\frac{7}{8} - 2\frac{1}{8} \\
 &= (3 + 4 + 6 + 11 - 2) + \\
 &\left( \frac{1}{2} + \frac{1}{2} + \frac{3}{4} + \frac{7}{8} - \frac{1}{8} \right) \\
 &= 22 + \left( \frac{4+4+6+7-1}{8} \right) \\
 &= 22 + \frac{20}{8} = 22 + 2\frac{4}{8} \\
 &= 22 + 2\frac{1}{2} = 24\frac{1}{2} \\
 130.(1) \quad ? &= 99999 + 9999 + 999 + \\
 &99 + 9 = 111105 \\
 131.(1) \quad ? &= 5213 + 4312 + 3112 + \\
 &4412 - 6103 = 10946 \\
 132.(1) \quad ? &= 880 + 420 + 333 + 122 \\
 &+ 5023 = 6778 \\
 133.(2) \quad ? &= 30.21 + 21.45 + 17.21 + 19.42 \\
 &= 88.29 \\
 134.(1) \quad ? &= 2\frac{1}{2} \text{ of } 2505 \div 20\% \text{ of } 160 \\
 &= \frac{5}{2} \times 2505 \div \frac{20}{100} \times 160 \\
 &= \frac{5}{2} \times \frac{2505 \times 100}{20} \times 160 \\
 &= 5010000
 \end{aligned}$$

$$\begin{aligned}
 135.(3) \quad \text{Let the fraction be } \frac{x}{y} \\
 \therefore \text{According to question,} \\
 x + y &= 11 \quad \dots (i) \\
 \frac{x+1}{y-2} &= \frac{2}{3} \\
 \Rightarrow 3(x+1) &= 2(y-2) \\
 \text{or, } 3x - 2y &= -7 \quad \dots (ii) \\
 \text{From equation (i) and (ii),} \\
 \text{We get, } x &= 3 \text{ and } y = 8 \\
 \therefore \text{The fraction is } &\frac{3}{8} \\
 136.(3) \quad \text{Let the numbers be } x \text{ and } \\
 1365 + x & \\
 \therefore \text{According to question,} \\
 1365 + x &= 6x + 15 \\
 \therefore x &= 270
 \end{aligned}$$

$$\begin{aligned}
 137.(3) \quad \text{Let original strength be } x \\
 \therefore \text{According to question,} \\
 40x + 12 \times 32 &= 36 \\
 \text{or, } \frac{x+12 \times 32}{x} &= 36 \\
 138.(3) \quad \text{Number of failures} &= 50\% \\
 \text{of } 1100 + 60\% \text{ of } 900 \\
 &= \frac{50 \times 1100}{100} + \frac{60 \times 900}{100} \\
 &= 1090 \\
 \text{Required percentage} \\
 &= \left( \frac{1090}{2000} \times 100 \right)\% = 54.5 \\
 139.(3) \quad x\% \text{ of } a &= y\% \text{ of } b \\
 \Rightarrow \frac{x \times a}{100} &= \frac{y \times b}{100} \\
 \Rightarrow b &= \left( \frac{x}{y} \times \frac{100}{100} \right) a \\
 &= \left( \frac{x}{y} \right) a \\
 \therefore z\% \text{ of } b &= (z\% \text{ of } \frac{x}{y}) a \\
 &= \left( \frac{xz}{y \times 100} \right) a \\
 &= \left( \frac{xz}{y} \right)\% \text{ of } a \\
 140.(3) \quad \text{Let the C.P. be Rs. } x \\
 \therefore \text{According to question,} \\
 \frac{105x}{100} - \frac{95x}{100} &= 15 \\
 \text{or, } \frac{10x}{100} &= 15 \\
 \therefore x &= 150 \\
 141.(2) \quad \text{Let marked price be Rs. } 100 \\
 \therefore \text{S.P.} &= 90\% \text{ of } 80\% \text{ of } 70\% \text{ of } 100 \\
 &= \frac{90}{100} \times \frac{80}{100} \times \frac{70}{100} \times 100 \\
 &= 50.4 \\
 \therefore \text{Single discount} \\
 &= 10 - 50.4 = 49.6\% \\
 142.(3) \quad \text{According to question,} \\
 \frac{x}{y} &= \frac{5}{2} \\
 \therefore \frac{8x+9y}{8x+2y} &= \frac{8\left(\frac{x}{y}\right)+9}{8\left(\frac{x}{y}\right)+2} \\
 &= \frac{8 \times \frac{5}{2} + 9}{8 \times \frac{5}{2} + 2} = \frac{29}{22}
 \end{aligned}$$

$$143.(4) \text{ Let } \frac{x}{5} = \frac{y}{8}$$

Then,  $x = 5K$  and  $y = 8K$

$$\therefore \frac{x+5}{y+8} = \frac{5K+5}{8K+8}$$

$$= \frac{5(K+1)}{8(K+1)} = \frac{5}{8}$$

144.(1) According to question,

A : B : C

$$= 10 \times 20 : 30 \times 8 : 16 \times 9$$

$$= 200 : 240 : 144$$

$$= 25 : 30 : 18$$

$$\therefore \text{C's rent} = \text{Rs. } (1095 \times \frac{18}{73})$$

= Rs. 270

145.(1) Since the length is to be found out, we compare each item with the length as shown below :

More men, More length built (Direct)

Less days, Less length built (Direct)

$$\begin{matrix} \text{Men} & 20 : 35 \\ \text{Days} & 6 : 3 \end{matrix} \therefore \begin{matrix} 56 : x \end{matrix}$$

$$\therefore 20 \times 6 \times x = 35 \times 3 \times 56$$

$$\text{or, } x = \frac{35 \times 3 \times 56}{20 \times 6} = 49$$

Hence, the required length = 49 metres

$$146.(1) \text{ A's 1 day's work} = \frac{1}{36}$$

$$\text{B's 1 day's work} = \frac{1}{40}$$

$\therefore (A+B)$ 's 1 day's work

$$= \left( \frac{1}{30} + \frac{1}{40} \right) = \frac{7}{120}$$

$\therefore$  Both together will finish

the work in  $\frac{120}{7} = 17\frac{1}{7}$  days.

147.(4) B's daily earning

$$= \text{Rs. } (300 - 188)$$

$$= \text{Rs. } 112$$

A's daily earning

$$= \text{Rs. } (300 - 152)$$

$$= \text{Rs. } 148$$

C's daily earning

$$= \text{Rs. } [300 - (112 + 148)]$$

$$= \text{Rs. } 40$$

$$148.(2) \text{ A's work in 1 hour} = \frac{1}{6}$$

$$\text{B's work in 1 hour} = \frac{1}{4}$$

(A+B)'s 2 hours work when opened alternately

$$= \frac{1}{6} + \frac{1}{4} = \frac{5}{12}$$

(A+B)'s 4 hours work when

$$\text{opened alternately} = \frac{10}{12} = \frac{5}{6}$$

Remaining part

$$= 1 - \frac{5}{6} = \frac{1}{6}$$

$\therefore$  Total time taken to fill the tank =  $(4 + 1)$  hrs. = 5 hrs.

149.(2) Let the total journey be x km. Then,

$$\frac{x/2}{40} + \frac{x/2}{60} = 8$$

$$\text{or, } \frac{x}{80} + \frac{x}{120} = 8$$

$$\text{or, } 3x + 2x = 240 \times 8$$

$$\text{or, } x = 384 \text{ cm.}$$

150.(1) Let the speed of the train be x kmph speed of the train relative to man

$$= (x+5) \text{ kmph}$$

$$= (x+5) \times \frac{5}{18} \text{ m/sec}$$

$$\therefore \frac{100}{(x+5) \times \frac{5}{18}} = 6$$

$$\Rightarrow 30(x+5) = 1800$$

$$\therefore x = 56$$

151.(1) Man's rate downstream

$$= (8+2) \text{ kmph}$$

Man's rate upstream

$$= (8-2) \text{ kmph} = 6 \text{ kmph}$$

Let the required distance be x km. Then,

$$\frac{x}{10} + \frac{x}{6} = 1$$

$$3x + 5x = 30$$

$$\therefore x = 3.75 \text{ km}$$

Therefore, the required distance is 3.75 km.

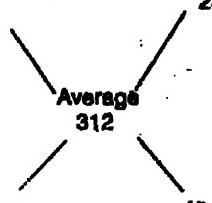
152.(1) Average money received

$$\text{by each} = \text{Rs. } \left( \frac{292}{100} \right) = \text{Rs. } 2.92$$

By rule of alligation

Sum got by each boy by 360

Sum got by each girl 240



$\therefore$  Ratio of boys and girls

$$= 72 : 48 = 3 : 2$$

$\therefore$  Number of girls

$$= 100 \times \frac{2}{5} = 40$$

153.(1) Let principal = P

Then, S.I. = P  
and Time = 8 years

$$\therefore \text{Rate} = \left( \frac{100 \times P}{P \times 8} \right) \%$$

$$= 12.5\%$$

154.(4) Let each side = a

Then area = a<sup>2</sup>

$$\text{New side} = \frac{125a}{100} = \frac{5}{4}a$$

$$\text{New area} = \frac{25a^2}{16}$$

Increase percent in area

$$= \left( \frac{9a^2}{16} - \frac{1}{a^2} \times 100 \right) \%$$

$$= 56.25\%$$

155.(2) Length of diagonal  
= Distance covered in 3 min

at 4 km/hr

$$= \left( \frac{4000}{60} \times 3 \right) \text{ m} = 200 \text{ m}$$

$\therefore$  Area of the field

$$= \frac{1}{2} (\text{diagonal})^2$$

$$= \frac{1}{2} (200 \times 200)^2$$

$$= 20000 \text{ m}^2$$

156.(3) 11 × 2 = 22

$$11 \times 3 = 33$$

$$11 \times 6 = 66$$

$$11 \times 9 = 99$$

$$11 \times 11 = 121$$

$$11 \times 26 = 286$$

$$11 \times 54 = 594$$

Therefore, each number except 279 is a multiple of 11. Hence, the number 279 is wrong.

157.(2) The series is based on following pattern :

$$36 \times 1.5 = 54$$

$$54 \div 3 = 18$$

$$18 \times 1.5 = 27$$

$$27 \div 3 = 9$$

$$9 \times 1.5 = 18.5$$

$$18.5 + 3 = 4.5$$

Therefore, the number 18.5 is wrong and it should be replaced by 18.

158.(1) Alternately 23 is added and 17 is subtracted from the terms. Therefore, 634 is wrong.

159.(4) The numbers are  $1^3, 2^3, 3^3, 4^3$ , etc. Therefore, 124 is wrong and it should be replaced by  $5^3$  i.e. 125.



## TEST-V DESCRIPTIVE TEST

**Ques. 1 : Suggest three effective measures to check corruption in public life.**

**Ans.** Corruption in public life is a deep-rooted problem in India at present. The degeneration in public life is a post-independence phenomena. In the post-independence phase power came in the hands of the natives. It is well known that "Power corrupts". Another important factor in the growth of corruption has been rampant consumerism in our social and material life. The following are three important suggestions to check corruption in public life.

(1) At the political and administrative level the institutions of Lok Pal and Lok Ayukta should be made more powerful. These positions should be brought under the ambit of constitution with the status of quasi-legal bodies. At present the Lok Pal and Lok Ayukta institutions are weaker bodies even as the Lok Pal Bill is pending in the Parliament. Besides, the vigilance departments of the Central and State governments which have considerably weakened in the recent times should be strengthened.

(2) In the social life restraint should be brought about in the rampant growth of consumerism. Multinational bodies or companies operating in consumer sector should strictly be prohibited from operating in India. Ostentatious display of wealth should be made a punishable offence. For instance, not only the expenditure in elections but also in social functions like marriages, parties etc. should be strictly brought under a ceiling. Perhaps one very progressive step to check corruption could be to make all transactions above a very lower limit through cheques. Of course, this will require a comprehensive banking reform and strengthening its infrastructure.

(3) However, the root cause of corruption is moral degeneration in the absence of which no suggested steps will be effective. Therefore, steps should be taken towards greater moral

consciousness and awareness. The values of honesty, morality and a higher responsibility towards the greater cause of nationality should be imbibed from the very childhood.

**Ques. 2 : In the context of the dissolution of the bipolar world, NAM has become irrelevant. Give three arguments in favour and three against this contention.**

### Arguments in favour

**Ans.** (1) NAM came into existence when the cold war was at its height. The members of Non-Aligned countries did not belong to any power block, Soviet Russia or the USA. But with the dissolution of Soviet Union, the days of cold war are over. That also brings a logical end to the NAM.

(2) Non-Aligned Movement countries were the newly independent countries of Asia, Africa and Latin America. Their immediate problems and concerns were related to developmental issues such as poverty alleviation, strengthening of literacy health and infrastructure. This was best possible only by taking the path of equidistance from the power blocks. However, several decades have passed since NAM came into existence. The problems and issues of these countries have also changed with time. Therefore, NAM has become irrelevant today.

(3) Ever since its beginning, NAM was always under the cloud. The US establishment disapproved of the pro-Soviet policies of the NAM and did not consider it a neutral body even then. Its voice was hardly respected even in its key days. Naturally its relevance which was questionable during those days will have even fewer takers today.

### Arguments against

(1) Non-Aligned Movement as the name suggests is a movement or has been a movement which cannot be hated merely because the two power blocks have ceased to exist. The NAM agenda is still relevant and should be continued.

(2) The members of the NAM are by and large the members of the third world countries which are still facing problems vis-a-vis the first world

countries. Together, NAM is a powerful body and in a position to resist the exploitation of its resources by the richer countries. The call for New International Economic Order by the NAM should be seen in this context.

(3) Besides, even after several decades of their independence, the NAM countries are still in the grip of poverty, malnutrition, illiteracy, technological backwardness etc. These problems can be better tackled only by south-south cooperation, in which NAM can play a better role. Therefore, all the more reason for NAM countries to stay together and make their movement stronger.

**Ques. 3 : What in your opinion is the reason for the poor performance of our sports persons in the international arena ?**

**Ans.** It is really shameful that India with huge resources and population lags behind even smaller countries like Peru and Uruguay in sports. This is because of several reasons. Our policy makers and administrators have not paid much attention to sports. China could greatly improve its sporting performance only due to its policy planning. Sports remains a neglected subject in schools in India, not so in China. There talent spotting takes place at a very early stage. Secondly, there is not much incentive for potential sportsmen in India to pursue it as a career because of low remuneration and bleak future. Of course, certain sports like cricket and tennis are exceptions. Traditionally sports have been looked down upon in India as only dull students taking to sports. No parent would ever like his or her child to take to sports. This attitude has to change. Even a handful of excellent sportsmen we have are not trained properly. They are trained barely few months before any international event. On the contrary, in China children as young as 8-10 years are spotted and trained year round as future Olympians. We also have very poor sports infrastructure and very few world class stadia. No wonder, India is yet to get a gold medal in any event except, hockey in the Olympics.

# NABARD OFFICERS' GRADE EXAM.

## REASONING

(BASED ON MEMORY)

**Directions (1-5) :** In each question below are given two statements followed by four conclusions numbered I, II, III and IV. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements, disregarding commonly known facts.

**1. Statements :**

All spoons are bowls.

Some bowls are plates.

**Conclusions :**

(I) Some spoons are plates.

(II) Some bowls are spoons.

(III) Some plates are spoons.

(IV) All bowls are spoons.

(1) Only I follows

(2) Only II follows

(3) Only II and III follows

(4) Only I and II follow

(5) None of these

**2. Statements :**

Some dogs are cats.

No cat is a cow.

**Conclusions :**

(I) Some cats are dogs.

(II) Some cows are dogs.

(III) No dog is a cow.

(IV) Some cats are not dogs.

(1) Only I and II follow

(2) Only II follows

(3) Only III and IV follow

(4) Only III follows

(5) None of these

**3. Statements :**

All bats are flies.

All rats are bats.

**Conclusions :**

I. All flies are rats.

II. All bats are rats.

III. All rats are flies.

IV. Some flies are not bats.

(1) Only I and III follow

(2) Only II and IV follow

(3) Only III and IV follow

(4) Only II and III follow

(5) None of these

**4. Statements :**

All cups are saucers.

All pots are cups.

**Conclusions :**

I. All pots are saucers.

II. All saucers are cups.

III. Some cups are pots.

IV. Some saucers are pots.

(1) Only I and III follow

(2) Only III and IV follow

(3) Only I, III and IV follow

(4) All follow

(5) None of these

**5. Statements :**

Some boats are buses.

All trains are buses.

**Conclusions :**

I. No train is boat.

II. All buses are trains.

III. Some buses are boats.

IV. Some trains are boats.

(1) Either I or IV and III follow

(2) Only IV follows

(3) Only I and III follow

(4) Only III and IV follow

(5) None of these

**Directions (6-12) :** The world famous Edward Museum in city 'X' has introduced the system of passcode for its visitors. The passcodes are generated by machine and automatically change after every one hour, during the visiting hours 11 a.m. to 7 p.m. The illustration of passcodes generated batchwise is given below:

**Passcode for batch I starting at 11 a.m.**

things keep dust your all away from never.

**Passcode for batch II starting at 12 Noon.**

all dust things your away from never keep.

**Passcode for batch III starting at 1 p.m.**

away things all your from never keep dust.

**Passcode for batch IV starting at 2 p.m.**

from all away your never keep dust things.

and so on upto the last batch starting at 6 p.m.

6. "he for went then to the shop in" is the passcode for seventh batch. "shop to the then in for went he" will be the passcode for which of the following batches?

(1) First batch

(2) Second batch

(3) Third batch

(4) Fourth batch

(5) None of these

7. "wait not for her till go to garden" is the passcode for batch starting at 12 Noon. When Sumitra visited, she was issued the passcode "garden go to her not for wait till". At what time did she visit?

(1) 3 p.m. (2) 5 p.m.

(3) 6 p.m. (4) 4 p.m.

(5) 1 p.m.

8. Mr. 'X' visited the museum at 1 p.m., but was wrongly issued the passcode for 4 p.m. batch which was "left is the hand right to his way". What is the correct passcode that should have been issued to Mr. 'X'?

(1) way to hand his is the left right

(2) way to his hand is the left right

(3) way to his hand the is left right

(4) way to his hand is the right left

(5) None of these

9. The passcode generated for the second batch on a particular day was "fat big nice girl for it was out". What will be the passcode for the sixth batch on that day?

(1) out it was girl big fat nice for

(2) out was it girl big nice fat for

(3) out it was girl big nice fat for

(4) out it girl was big nice fat for

(5) None of these

10. The passcode for batch starting at 2 p.m. was "walk slow health for good physique for men". What would be the passcode for the batch starting at 5 p.m.?

(1) for physique good for men slow health walk

(2) for good physique for men health slow walk

(3) good for physique for men health slow walk

(4) good physique for men for slow health walk

(5) None of these

11. Mr. Ashok visited the museum at 3 p.m. The passcode he received was "at the few words all in for race". What would have been his passcode had he visited the museum at 1 p.m.?

(1) the for words race few at all in

(2) the for race words few at all in

(3) for the words race few at all in

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- (4) for the race words few at all in  
 (5) None of these

12. If the passcode for fifth batch is "set all get ready for the race today", what will be the passcode for the first batch ?

- (1) race for the ready today all get set  
 (2) race for the today ready all get set  
 (3) race the for ready today all get set  
 (4) race for the ready today get all set  
 (5) None of these

13. In a certain code language the word DISTANCE is written as FLUWCQEHE, how will the word NUMERALS be written in that code language ?

- (1) PXNHTDNV (2) PXOITDNV  
 (3) PWOHTDNV (4) PXOHTDNV  
 (5) None of these

14. Five friends A, B, C, D and E are staying in the same locality. B's house is to the east of A's house and to the north of C's house. C's house is to the west of D's house. D's house is in which direction with respect to A's house ?

- (1) South-East  
 (2) North-East  
 (3) East  
 (4) Data inadequate  
 (5) None of these

15. What should come in place of the question mark (?) in the following series ?

- A 3 E, D 6 H, ?, J 12 N,  
 (1) F 9 J (2) G 9 L  
 (3) F 9 K (4) G 9 M  
 (5) None of these

**Directions (16-20) :** Each of the questions consist of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question.

Read both the statements and-

**Give answer (1)** if the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.

**Give answer (2)** if the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.

**Give answer (3)** if the data either in statement I alone or in statement II alone are sufficient to answer the question.

**Give answer (4)** if the data even in both statements I and II together are not sufficient to answer the question.

**Give answer (5)** if the data in both statements I and II together are necessary to answer the question.

16. How long does it take to reach city 'Y' from city 'X' ?

I. Sangita was scheduled to leave the city 'X' at 17.15 hrs. but got late by 45 minutes and reached city 'Y' at 06.15 hrs. the next day.

II. Sangita reached the bus-stand of city 'X' at 14.25 hrs. and got the bus after waiting for 35 minutes. She reached city 'Y' at 3.15 hrs. the next day.

17. When was Samir born ?

I. Samir passed out from the University on his 22nd birthday on 16th April 1999.

II. Samir was elder than Sudha by three years who recently celebrated her 18th birthday.

18. How is Mr. Sandeep related to Sushila ?

I. Mr. Sandeep is the only son of Sushila's brother's father-in-law.

II. Mr. Sandeep's father-in-law is Sushila's father.

19. The annual function of college 'X' was celebrated on which date ?

I. The annual function was celebrated on its 25th foundation day.

II. The college was founded on 85th day of the year 1974.

20. Who among the three friends A, B and C reached the school first ?

I. A reached the school at 7.15 a.m. five minutes before the bell rang.

II. B reached before C who reached the school before the bell rang.

**Directions (21-29) :** Study the following letter/number series to answer these questions:

F 6 Z 7 1 T 3 U X R 5 2 9 P 4 B A 7  
 8 D 4 6 F G H 2 P 3 Q R

21. How many letters are there in the series which are immediately preceded as well as immediately followed by a number ?

- (1) 2 (2) 3  
 (3) 4 (4) 5

(5) None of these

22. How many numbers are there in the series which are immediately preceded by a number and immediately followed by a letter ?

- (1) 4 (2) 2  
 (3) 3 (4) 5

(5) None of these

23. If all the numbers are dropped from the series and the order of letters is reversed, which letter will be 6th to the right of fifth letter from left ?

- (1) F (2) X  
 (3) R (4) G  
 (5) None of these

**Directions (24-30) :** A Chemical company 'X' decided to recruit Management Trainees for its Ammonia plant. The company laid down the following criteria. The candidate-

(i) should be a Chemical Engineering graduate with minimum 65% marks.

(ii) should have done at least a diploma in business management.

(iii) should not be less than 21 years and more than 28 years of age as on 1.7.99

(iv) should have secured a minimum of 75% marks in the Common Entrance Test (CET).

However, if the candidate fulfills all other criteria except-

(a) (i) above but has secured marks above 60% 65% and also working experience of one year, his case may be referred to the Managing Director.

(b) (ii) above, and has secured more than 80% marks in CET; his case may be referred to the General Manager of the plant.

(c) (iv) above, but has passed the CET exam with at least 65% marks and has secured more than 70% marks in Chemical engineering degree exam; his case may be referred to the Vice President.

Based on the above criteria and the information given in each of the following questions, you have to take a decision in regard to each case. You are not to assume anything. These cases are given to you as on 1st July, 1999.

Mark your answer	If the candidate is-
(1)	to be selected.
(2)	to be referred to the Managing Director.
(3)	to be referred to the General Manager of the plant.
(4)	to be referred to the Vice President.
(5)	not to be selected.

24. Subhash Chandra, who is working in a chemical factory as Junior Engineer (Chemicals) since 30.6.98, is a chemical engineering graduate with 72% marks. He has passed CET with 85% marks. His date of birth is 23.12.77.

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**25.** Anundhali, a 27 years old lady is chemical engineer with 61% marks and has also done a diploma course in Information Technology. She is working with a private company as manager-software since past three years. She has obtained a postgraduate degree in business management. She has secured 79% marks in CET.

**26.** Shirish Guha has completed his graduation in chemical engineering with 75% marks and diploma in business management with 60% marks. He has passed the CET with 69% marks. He celebrated his 27th birthday on 17th March 1999.

**27.** Dilip Khare is an engineering graduate passed out in 1996 with 70% marks. He has secured 68% marks in CET. His date of birth is 25.10.1976. He has completed his postgraduate diploma in business management from a reputed institute.

**28.** Rajiv Mhatre is a 25 years old Chemical Engineering Graduate with 62% marks in graduation. He is working in a private chemical company as an Assistant Manager for the last two years. He has passed CET with 82% marks and has done diploma in business management in 1995.

**29.** Mamta is an electrical engineer with 74% marks. She has done diploma in business management as well as in chemical technology securing 66% and 62% marks respectively. Her date of birth is 16.12.1973. She has passed out CET with 80% marks.

**30.** Subhodh Roy is studying post graduate degree in chemical engineering at present. He has secured 73% marks in B.E. chemical engineering. His date of birth is 25th June 1978. He has also completed the diploma in business management and has passed out CET with 82% marks. He has no working experience.

**31.** If it is possible to make a meaningful word from the first, fourth, fifth and the seventh letters of the word MYSTERIOUS using each letter only once, write second letter of that word as your answer. If more than one such word can be formed; write 'M' as your answer and if no such word can be formed, write 'X' as your answer.

(1) I.

(2) E

- (3) T                          (4) M  
 (5) X

**Directions (32-34) :** Study the following information carefully to answer the questions given below.

(i) Six friends A, B, C, D, E and F are sitting along the sides of a hexagonal table for playing a game; though not necessarily in the same order.

(ii) F who is sitting exactly opposite of A is to the immediate right of B.

(iii) D is between A and B and is exactly opposite of C.

32. A is sitting between which of the following pair of persons ?

- (1) D and E                    (2) B and E  
 (3) B and C                    (4) E and C  
 (5) None of these

33. Four of the following pairs are alike in a certain way on the basis of sitting positions and so form a group. Which is the one that does not belong to the group ?

- (1) A, D                      (2) B, C  
 (3) B, F                      (4) C, E  
 (5) E, A

34. Who is sitting opposite of B ?

- (1) C  
 (2) A  
 (3) E  
 (4) Data inadequate  
 (5) None of these

35. In Rita's class boys and girls are in the ratio of 1:2. From top Rita ranks 8th among girls and 17th among all students. If her rank from the bottom among all students is 20th, how many boys are there below Rita in the class ?

- (1) 4  
 (2) 1  
 (3) 9  
 (4) Data inadequate  
 (5) None of these

**Directions (36-40) :** In the following questions the symbols +, x, =, ÷, and - are used with the following meaning:

P + Q means P is greater than Q

P x Q means P is either greater than or equal to Q

P = Q means P is equal to Q

P ÷ Q means P is smaller than Q

P - Q means P is either smaller than or equal to Q

Now in each of the following questions assuming the given statements to be true, find which of the

two conclusions I and II given below them is/are definitely True ?

Give answer (1) if only conclusion I is true.

Give answer (2) if only conclusion II is true.

Give answer (3) if either I or II is true.

Give answer (4) if neither I nor II is true.

Give answer (5) if both I and II are true.

**36. Statements :** U + V, W - Y, Y x U

**Conclusions :** I. W + U   II. W ÷ V

**37. Statements :** B + A, D x E, E + A

**Conclusions :** I. D + A   II. B ÷ E

**38. Statements :** S x Q, R + T, R - S

**Conclusions :** I. S + T   II. Q = T

**39. Statements :** M ÷ N, P x Q, P + N

**Conclusions :** I. N + Q   II. N - Q

**40. Statements :** G - H, K x L, L - G

**Conclusions :** I. G ÷ K   II. L - H

**Directions (41-45) :** Below is given a passage followed by several possible inferences which can be drawn from the facts stated in the passage. You have to examine each inference separately in the context of the passage and decide upon its degree of truth or falsity.

Mark answer (1) if the inference is "definitely true" i.e. it properly follows from the statement of facts given.

Mark answer (2) if the inference is "probably true" though not "definitely true" in the light of the facts given.

Mark answer (3) if the data are inadequate i.e. from the facts given you cannot say whether the inference is likely to be true or false.

Mark answer (4) if the inference is "probably false" though not "definitely false" in the light of the facts given.

Mark answer (5) if the inference is "definitely false" i.e. it cannot possibly be drawn from the facts given or it contradicts the given facts.

Low vision is a lesser known but widely prevalent eye problem in India. While more than 28 million people in India suffer from low vision in our country, many people do not realize that they have this problem.

Low vision people are neither blind nor do they have full vision. Technically speaking they score less than 6/18 on visual acuity, and their field of vision is restricted to 10 degrees or less. The

people who cannot see very well but whose vision is not helped by the normal glasses are often those suffering from low vision.

41. It is possible to detect cases of low vision by using scientific techniques.

42. Regular and free check up of eyes for visual acuity can help to reduce cases of low vision among poor people in India.

43. The actual number of cases of low vision in India is likely to be more than 28 millions.

44. The number of cases of low vision in other countries of Asia is quite high compared to India.

45. It is possible to produce of special glasses in India.

**Directions (46-50) :** In making decisions about important questions, it is desirable to be able to distinguish between "Strong" arguments and "Weak" arguments so far as they relate to the question. "Strong" arguments are those which are both important and directly related to the question. "Weak" arguments are those which are of minor importance and also may not be directly related to the questions or may be related to a trivial aspect of the question.

**Instructions :** Each question below is followed by two arguments numbered I and II. You have to decide which of the arguments is a "strong" argument and which is a "weak" argument.

Give answer (1) if only argument I is "strong".

Give answer (2) if only argument II is "strong".

Give answer (3) if either I or II is "strong" and

Give answer (4) if neither I nor II is "strong" and

Give answer (5) if both I and II are "strong".

46. Statement : Should military training of 3 years be made compulsory to all able bodied youths in India?

Arguments : I. Yes, similar practice is being followed in some developed countries.

II. No, compulsion spoils the best in everything.

47. Statement : Should Government standardize rent for rented

houses in big cities in India?

Arguments : I. No, it is an interference in the relationship between landlord and tenant.

II. Yes, Government can do it, provided it has political will to do it.

48. Statement : Should old and poorly maintained petrol/diesel vehicles like autorickshaw, taxies which generate heavy pollution be banned for public services in big cities?

Arguments : I. Yes, it will reduce pollution level in these cities which will enhance health of citizen.

II. No, what the poor auto rickshaw/taxi drivers will do for their survival.

49. Statement : Should Government dependent loss making academic institutes like Universities/Colleges be closed down in India?

Arguments : I. Yes, they are only creating batches of unemployable young graduates.

II. Yes, none of the developed countries support universities by such massive financing.

50. Statement : Should the system of paying minimum purchase price for farmers for wheat, rice and like be scrapped in India?

Arguments : I. No, farmers who produce our staple food must get decent return on their investment and labour in a Welfare State like India.

II. Yes, it is an outdated practice which we must discard.

**Directions (51-55) :** In each question below is given a statement followed by two assumptions numbered I and II. An assumption is something supposed or taken for granted. You have to consider the statement and the following assumptions and decide which of the assumptions is implicit in the statement.

Give answer (1) if only assumption I is implicit.

Give answer (2) if only assumption II is implicit.

Give answer (3) if either I or II is implicit,

Give answer (4) if neither I nor II is implicit, and

Give answer (5) if both I and II are implicit.

51. Statement : India must earn lot of foreign exchange to achieve her target of economic development.

Assumptions : I. India desires to achieve the target of economic development.

II. It is possible for India to earn more foreign exchange.

52. Statement : "As you want to succeed in life, you must work hard", 'A' tells 'B'.

Assumptions : I. 'B' is capable of doing hard work.

II. All those who have worked hard have succeeded in life.

53. Statement : The nutritional status of children in India is better compared to other developing countries.

Assumptions : I. It is not possible to estimate nutritional requirement of children in other countries.

II. India can become a developed country.

54. Statement : He teaches behavioural science but see how he behaves with others?

Assumptions : I. Our behaviour is controlled by others.

II. One is expected to follow what one preaches.

55. Statement : Economic development and social justice should go hand-in-hand.

Assumptions : I. Only economic development can bring social justice.

II. Life without social justice is worth not living.

**Directions (56-60) :** In each question below is given a statement followed by two courses of action numbered I and II. A course of action is a step or administrative decision to be taken for improvement, follow-up or further action in regard to the problem policy, etc. on the basis of the information given in the statement. You have to assume everything in the statement to be true. Then decide which of the two given suggested courses of action logically follows for pursuing.

Give answer (1) if only I follows;

Give answer (2) if only II follows;

Give answer (3) if either I or II follows;

Give answer (4) if neither I nor II follows and

Give answer (5) if both I and II follow.

**56. Statement :** In response to the published tender notice, the Company 'Z' has received 57 sealed tenders.

**Courses of action :** I. The concern department has to open the tenders and scrutinise them as per the procedure.

II. The purchase committee will have to meet and recommend to the Management the parties identified for allotting tenders.

**57. Statement :** The company 'X' has decided to give 10% increase in salary to its employees from next month.

**Courses of action :** I. The accounts department will have to prepare new salary statement for all employees before due date.

II. Employees association should ask for more rise in the salary considering the market condition.

**58. Statement :** The board of directors of the Company 'K' have decided in principle to wind up or sell of its business in all but core competency areas.

**Courses of action :** I. The top management will have to first identify core competency areas off its operation.

II. It will have to identify and shift its best people from core competency areas of non-core area.

**59. Statement :** The State 'K' is expecting bumper crop of rice this year under its 'Rice Purchase Guarantee Scheme'.

**Courses of action :** I. Other farmers will also start cultivation of rice from the next year.

II. The price of rice will increase in the open market.

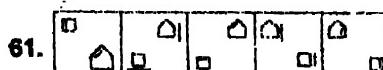
**60. Statement :** The eligibility for appearing for Common Entrance Test (CET) for Engineering in State 'M' is now raised to 60% from earlier 50% at HSC examination.

**Courses of action :** I. Many candidates from State 'M' may not appear for C.E.T. this year and may appear for C.E.T. examinations of other States.

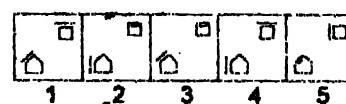
II. At Pre-examination screening candidates obtaining less than 60% at HSC will have to be eliminated.

**Directions (61-65) :** In each question below are given five Problem Designs in a row. These are followed by a row of five answer designs with numbers (1), (2), (3), (4), and (5). Look at the first row of problem designs and find out the rule according to which they change from left to right. The question is "According to this rule which of the five answer designs will be the next design if the series were continued?"

#### PROBLEM FIGURES



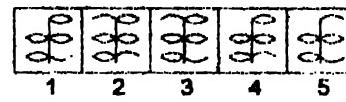
#### ANSWER FIGURES



#### PROBLEM FIGURES



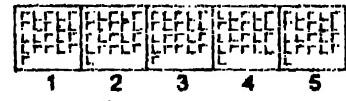
#### ANSWER FIGURES



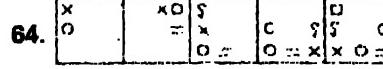
#### PROBLEM FIGURES



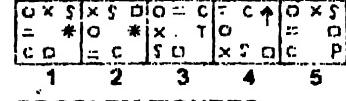
#### ANSWER FIGURES



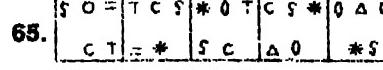
#### PROBLEM FIGURES



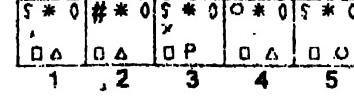
#### ANSWER FIGURES



#### PROBLEM FIGURES



#### ANSWER FIGURES

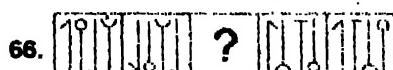


#### PROBLEM FIGURES

**Directions (66-70) :** In each of these questions there are two sets of figures. The figures on the top are Problem Figures (four figures and one

question-marked space) and those on the bottom are Answer Figures indicated by numbers 1, 2, 3, 4 and 5. A series is established if one of the five Answer Figures is placed at the "question-marked space". Figures form a series if they change from left to right according to same rule. The number of the Answer Figure which should be placed in the question-marked space is the answer. All the five figures i.e. four Problem Figures and one Answer Figure placed in the question marked space should be considered as forming the series.

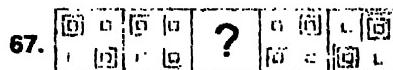
#### PROBLEM FIGURES



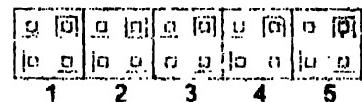
#### ANSWER FIGURES



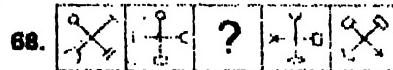
#### PROBLEM FIGURES



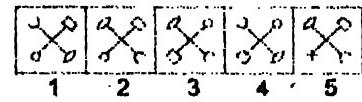
#### ANSWER FIGURES



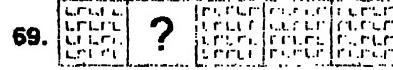
#### PROBLEM FIGURES



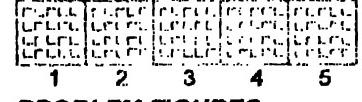
#### ANSWER FIGURES



#### PROBLEM FIGURES



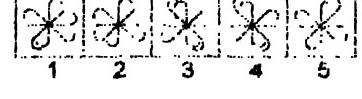
#### ANSWER FIGURES



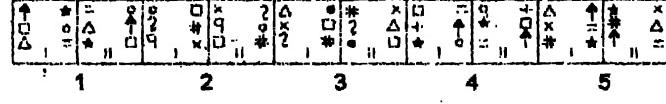
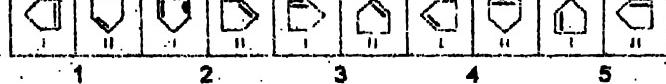
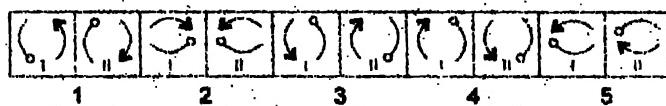
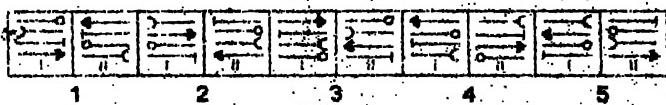
#### PROBLEM FIGURES



#### ANSWER FIGURES

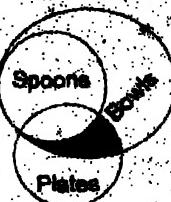


**Directions (71-75):** In each of the following questions, a related pair of figures is followed by five numbered pairs of figures. Select the pair that has a relationship similar to that in the original pair. The best answer is to be selected from a group of fairly close choices.



### ANSWERS WITH EXPLANATION

1. (2)



Both the premises are already aligned.

All spoons are bowls.

Some bowls are plates.

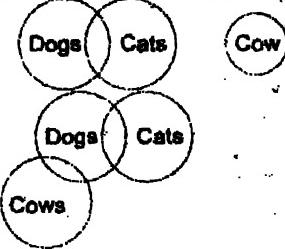
We know that,

A + I  $\Rightarrow$  No Conclusion

Conclusion II is the conversion of the first premise.

Therefore, only II follows.

2. (5)



Both the premises are already aligned.

Some dogs are cats.

No cat is a cow.

We know that,

I + E  $\Rightarrow$  O type conclusion.

Thus, our derived conclusion would be:

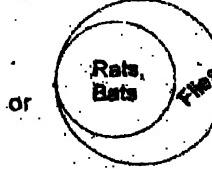
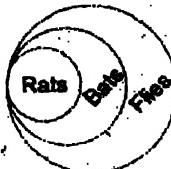
"Some dogs are not cows".

Conclusion I is the conversion of the first premise.

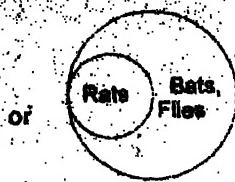
If we take the converse of either conclusion II or III, the conclusions II and III form complementary pair.

Therefore, conclusions I and either II or III follow.

3. (5)



SHORT ANSWERS					
1. (2)	2. (5)	3. (5)	4. (3)	5. (1)	6. (4)
7. (4)	8. (2)	9. (3)	10. (5)	11. (2)	12. (1)
13. (4)	14. (1)	15. (5)	16. (3)	17. (1)	18. (1)
19. (5)	20. (4)	21. (4)	22. (1)	23. (3)	24. (3)
25. (2)	26. (4)	27. (5)	28. (2)	29. (5)	30. (1)
31. (4)	32. (1)	33. (2)	34. (3)	35. (5)	36. (4)
37. (5)	38. (1)	39. (4)	40. (2)	41. (1)	42. (1)
43. (1)	44. (3)	45. (3)	46. (4)	47. (4)	48. (1)
49. (4)	50. (1)	51. (5)	52. (1)	53. (4)	54. (2)
55. (4)	56. (1)	57. (1)	58. (1)	59. (4)	60. (2)
61. (4)	62. (1)	63. (1)	64. (1)	65. (3)	66. (4)
67. (1)	68. (2)	69. (1)	70. (1)	71. (1)	72. (3)
73. (5)	74. (1)	75. (2)			



We can align the premises by changing their order:

All rats are bats.

All bats are flies.

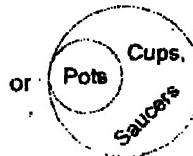
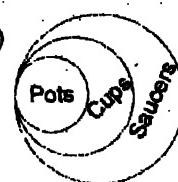
We know that,

$A + A \Rightarrow$  type conclusion.

Thus, our derived conclusion would be : "All rats are flies".

Therefore, only conclusion I follows.

4. (3)



We can align the premises by changing their order :

All pots are cups.

All cups are saucers.

We know that,

$A + A \Rightarrow$  A type conclusion.

Thus, our derived conclusion would be :

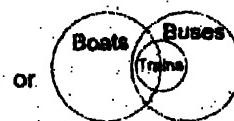
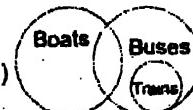
"All pots are saucers."

Conclusion III is the conversion of the second premise.

Conclusion IV is the conversion of the derived conclusion.

Therefore, only conclusions I, III and IV follow.

5. (1)



We can align the premises by converting the first premise and changing their order:

All trains are buses.

Some buses are boats.

But, A + I  $\Rightarrow$  No conclusion.

Conclusion III is the conversion of the first premise.

Conclusions I and IV form complementary pair.

Therefore, either I or IV and III follow.

(6-12) : After careful observation of the passwords for subsequent batches it is clear that the password for the next batch is generated in the following manner:

11. am : Batch I

things keep dust your all away from never  
1 2 3 4 5 6 7 8

12. Noon : Batch II

all dust things your away from never keep  
5 3 1 4 6 7 8 2

\*Again

all dust things your away from never keep dust  
1 2 3 4 5 6 7 8

1. pm : Batch III

away things all your from never keep dust  
5 3 1 4 6 7 8 2

\*Again

away things all your from never keep dust  
1 2 3 4 5 6 7 8

2pm : Batch IV

from all away your never keep dust things  
5 3 1 4 6 7 8 2

\*Again

from all away your never keep dust  
1 2 3 4 5 6 7 8

3 pm : Batch V

never away from your keep dust things all  
5 3 1 4 6 7 8 2

\*Again

never away from your keep dust things all  
1 2 3 4 5 6 7 8

4 pm : Batch VI

keep from never your dust things all away  
5 3 1 4 6 7 8 2

\*Again

keep from never your dust things all away  
1 2 3 4 5 6 7 8

5 pm : Batch VII

dust never keep your things all away from  
5 3 1 4 6 7 8 2

\*Again

dust never keep your things all away from  
1 2 3 4 5 6 7 8

6 pm : Batch VIII

things keep dust your all away from never  
5 3 1 4 6 7 8 2

6. (4) Password for Vith Batch

he for went then to the shop in  
1 2 3 4 5 6 7 8

Password for Vith Batch

to your he then the shop in for  
5 3 1 4 6 7 8 2

\*Again

to went he then the shop in for went  
1 2 3 4 5 6 7 8

Password for Vith Batch

the he to then shop in for went  
5 3 1 4 6 7 8 2

\*Again

the he to then shop in for went  
1 2 3 4 5 6 7 8

Password for IVth Batch

shop to the then in for went he  
5 3 1 4 6 7 8 2

7. (4) Password for 12 Noon

wall not for her ill go to garden  
1 2 3 4 5 6 7 8

Password for 1 pm.

till for wall her go to garden not  
5 3 1 4 6 7 8 2

\*Again

till for wall her go to garden not  
1 2 3 4 5 6 7 8

Password for 2 pm

go wait till her to garden not for  
5 3 1 4 6 7 8 2

\*Again

go wait till her to garden not for  
1 2 3 4 5 6 7 8

Password for 3 pm

to till go her garden not for wait  
5 3 1 4 6 7 8 2

\*Again

to till go her garden not for wait  
1 2 3 4 5 6 7 8

Password for 4 pm

garden go to her not for wall ill  
5 3 1 4 6 7 8 2

8. (2) Password for 4 pm

left is the hand right to his way  
5 3 1 4 6 7 8 2

Password for 3 pm

the way is hand left right to his  
1 2 3 4 5 6 7 8

\*Again

the way is hand left right to his  
5 3 1 4 6 7 8 2

Password for 2 pm

is his way hand the left right to  
1 2 3 4 5 6 7 8

\*Again

is his way hand the left right to  
5 3 1 4 6 7 8 2

Password for 1 pm

way to his hand is the left right  
1 2 3 4 5 6 7 8

9. (3) Password for lInd Batch

fat big nice girl for it was out  
1 2 3 4 5 6 7 8

Password for llIrd Batch

for nice fat girl it wet out big  
5 3 1 4 6 7 8 2

Again,

for nice fat girl it was out big  
1 2 3 4 5 6 7 8

**Password for IVth Batch**

fat for girl was out big nice  
5 3 1 4 6 7 8 2

Again

fat for girl was out big nice  
1 2 3 4 5 6 7 8

**Password for Vth Batch**

was for it girl out big nice fat  
5 3 1 4 6 7 8 2

Again

was for it girl out big nice fat  
1 2 3 4 5 6 7 8

**Password for VIth Batch**

out it was girl big nice fat for  
5 3 1 4 6 7 8 2

**10. (5) Password for 2 pm**

walk slow health for good physique for men  
1 2 3 4 5 6 7 8

**Password for 3 pm**

good health walk for physique for men slow  
5 3 1 4 6 7 8 2

Again

good health walk for physique for men slow  
1 2 3 4 5 6 7 8

**Password for 4 pm**

physique walk good for for men slow health  
5 3 1 4 6 7 8 2

Again

physique walk good for for men slow health  
1 2 3 4 5 6 7 8

**Password for 5 pm**

for good physique for men slow health walk  
5 3 1 4 6 7 8 2

**11. (2) Password for 3 pm**

at the few words all in for race  
5 3 1 4 6 7 8 2

**Password for 2 pm**

few race the words at all in for  
1 2 3 4 5 6 7 8

Again

few race the words at all in for  
5 3 1 4 6 7 8 2

**Password for 1 pm**

the for race words few at all in  
1 2 3 4 5 6 7 8

**12. (1) Password for Vth Batch**

set all get ready for the race today  
5 3 1 4 6 7 8 2

**Password for IV Batch**

get today all ready set for the race  
1 2 3 4 5 6 7 8

Again

get today all ready set for the race  
5 3 1 4 6 7 8 2

**Password for IIIrd Batch**

all race today ready set set for the  
1 2 3 4 5 6 7 8

Again

all race today ready set set for the  
5 3 1 4 6 7 8 2

**Password for IIInd Batch**

today the race ready all set set for  
1 2 3 4 5 6 7 8

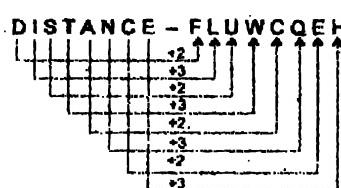
Again

today the race ready all set set for  
5 3 1 4 6 7 8 2

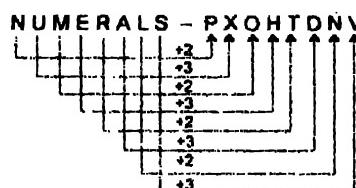
**Password for Ist Batch**

race for the ready today all set set  
1 2 3 4 5 6 7 8

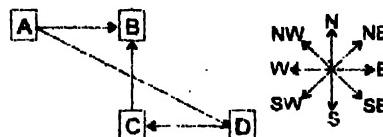
13. (4)



Similarly,



14. (1)



It is clear from the diagram that D's house is in South-East direction with respect to A's house.

15. (5)

A  $\xrightarrow{+3}$  D  $\xrightarrow{+3}$  G  $\xrightarrow{+3}$  J  
3  $\xrightarrow{+3}$  6  $\xrightarrow{+3}$  9  $\xrightarrow{+3}$  12  
E  $\xrightarrow{+3}$  H  $\xrightarrow{+3}$  K  $\xrightarrow{+3}$  N

16. (3) From statement I

Sangita left City 'X' at 17.15 + 00.45  
= 18.00 hrs

Sangita reached City 'Y' after  
(6.15 – 18.00) hrs.

or, 30.15 – 18.00 = 12.15 hrs.

From statement II

Sangita left City 'X' at 14.25 + 00.35

= 15.00 hrs.

Sangita reached City 'Y' after  
(3.15 – 15.00) hrs.

or, 27.15 – 15.00 = 12.15 hrs.  
Thus, data either in statement I alone or in statement II alone are sufficient to answer the question.

17. (1) From statement I we can determine the birthday of Samir.

Samir was born on → 16th April, 1977.  
Statement II furnishes vague information.

18. (1) From statement I

Sandeep is the only son of Sushila's brother's father-in-law. Therefore, Sandeep is the brother-in-law of Sushila.

From statement II

Sushila's father is the father-in-law of Sandeep. Therefore, Sandeep is the husband or brother-in-law of Sushila.

Thus, the data in statements I alone are sufficient to answer the question; while the data in statement II alone are not sufficient to answer the question.

19. (5) The data in both statement I and II together are necessary to answer the question.

20. (4) From statement I

A reached the school at 07.15 am  
Bell rang at 07.15 + 00.05  
= 07.20 am.

From statement II

B reached before C and C reached the school before the bell rang i.e., before 07.20 am. But it is not clear exactly at what time he reached the school.

21. (4)

Number Letter Number

6 2 7 ; 1 1 3 ; 9 1 4 ; 8 1 4 ;  
2 1 3

Thus, there are five such combinations.

22. (1)

Number Number Letter

7 1 1 ; 2 9 1 ; 7 8 1 ; 4 6 1

Thus, there are four such combinations.

23. (3) According to question the new sequence would be :

6th to right of G

R Q P H G F D A B P R X U T Z F

5th letter from left

(24 - 30) :

Candidate	C R I T E R I A				
	(i) or (a)	(ii) or (b)	(iii)	(iv) or (c)	
Subhash	✓	✓	-	✓	✓
Arundhati	-	✓	✓	-	✓
Shrirish	✓	-	✓	-	✓
Dilip	✗	✗	✓	-	✗
Rajiv	-	✓	✓	✓	✓
Mamta	✗	✗	✓	-	✓
Subodh	✓	-	✓	✓	✓

24. (3) Subhash Chandra satisfies criteria at (i), (b), (iii) and (iv). Therefore his case should be referred to the General Manager of the plant.

25. (2) Arundhati satisfies criteria at (a), (ii), (iii) and (iv). Therefore, her case should be referred to the Managing Director.

26. (4) Shirish Guha satisfies criteria at (i), (ii), (iii) and (c). Therefore, his case should be referred to the Vice President.

27. (5) Dilip Khare is not a Chemical Engineer.

28. (2) Rajiv Mhatre satisfies criteria at (a), (ii), (iii) and (iv). Therefore his case should be referred to the Managing Director.

29. (5) Mamta is an electrical engineer. Therefore, she cannot be selected.

30. (1) Subodh Roy satisfies all the criteria.

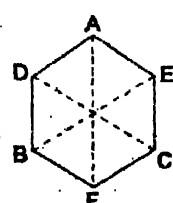
31. (4)

1 2 3 4 5 6 7 8 9 10  
M Y S T E R I O U S

Specified Letters : M, T, E, I

Meaningful Words : TIME,  
MITE

(32-34) : The sitting arrangement



32. (1) A is sitting between D and E.

33. (2) Except BC, all others are pairs of adjacent persons.

34. (3) E is sitting opposite of B.

35. (5)

16 students → 17th  
7 Girls (9 Boys) 20th → 19 students

Total number of students in the class  
 $= (17 + 20) - 1 = 38$

$3 \Rightarrow 36$

$$\therefore 1 \Rightarrow \frac{36}{3} = 12$$

Number of boys = 12

Number of girls = 24

Number of boys below Rita

$$= 12 - 9 = 3$$

36. (4) Statements

$U + V, W - Y, Y \times U$

After conversion

$U > V, W \leq Y, Y \geq U$

or,  $W \leq Y \geq U > V$

Conclusions

I.  $W + U \Rightarrow W > U \rightarrow$  Not True

II.  $W \div V \Rightarrow W < V \rightarrow$  Not True

37. (5) Statements

$B \div A, D \times E, E + A$

After conversion

$B < A, D \geq E, E > A$

or,  $D \geq E > A > B$

Conclusions

I.  $D + A \Rightarrow D > A \rightarrow$  True

II.  $B \div E \Rightarrow B < E \rightarrow$  True

38. (1) Statements

$S \times Q, R + T, R - S$

After conversion

$S \geq Q, R > T, R \leq S$

or,  $T < R \leq S \geq Q$

Conclusions

I.  $S + T \Rightarrow S > T \rightarrow$  True

II.  $Q = T \rightarrow$  Not True

39. (4) Statements

$M \div N, P \times Q, P + N$

After conversion

$M < N, P \geq Q, P > N$

or,  $Q \leq P > N > M$

Conclusions

I.  $N + Q \Rightarrow N > Q \rightarrow$  Not True

II.  $N - Q \Rightarrow N \leq Q \rightarrow$  Not True

40. (2) Statements

$G - H, K \times L, L - G$

After conversion

$G \leq H, K \geq L, L \leq G$

or,  $K \geq L \leq G \leq H$

Conclusions

I.  $G \div K \Rightarrow G < K \rightarrow$  Not True

II.  $L - H \Rightarrow L \leq H \rightarrow$  True

41. (1) The passage refers to such techniques indirectly but the inference is definitely true.

42. (1) The main purpose of the passage has been expressed in the inference.

43. (1) The second line of the passage indicates so.

44. (3) There is no such reference in the passage.

45. (3) There is no such reference in the passage.

46. (4) Neither of the arguments is strong. We know that critical analogy or a precedent is a bad argumentation. The argument based on an example does not hold strong. Therefore, argument I is not strong. Argument II is more or less an individual perception and hence cannot be strong.

47. (4) The Government is meant to look after the welfare of the community as a whole. Therefore, argument I does not hold strong. For similar reason, argument II does not hold strong.

48. (1) Only argument I holds strong. Pollution problem should be dealt with on priority basis. The Government can make alternative arrangement for the sufferers. Therefore, argument II does not hold strong.

49. (4) Neither of the arguments holds strong. Here, the main problem is financial crunch and not that of increased number of unemployed youths. Argument II is based on an example and hence it is not strong.

50. (1) Argument I highlights the fact underlying the system of paying minimum purchase price for farmers. Therefore, argument I is strong. Argument II lacks substance.

51. (5) Both the assumptions are implicit in the statement. If India does not desire to achieve the target of economic development, the statement is meaningless. Again, if it is not possible to earn more foreign exchange why it has been suggested so.

52. (1) Only assumption I is implicit in the statement. If B is not capable of doing hard work A would not have suggested so. Furthermore, A told B to do hard work assuming that B is capable of doing hard work. The use of word "All" in the second assumption makes it invalid.

53. (4) Neither of the assumptions is implicit in the statement. Assumption I contradicts the statement. Nutritional status is not the sole criterion to become a developed country. Therefore, assumption II is also not implicit.

54. (2) Only assumption II is implicit in the statement.

55. (4) Neither of the assumptions is implicit in the statement. The use of word "Only" in the first assumption makes it invalid.

56. (1) Only first course of action seems to be suitable. After receiving the tenders, the concerned department should scrutinise them as per procedure

57. (1) Obviously, course of action I is suitable for pursuing.

58. (1) Obviously, course of action I is appropriate.

59. (4) In fact, neither of courses of action qualifies as administrative step or further action.

60. (2) Obviously, course of action II is suitable for pursuing.

61. (4) From Problem Figure (1) to (2) the rectangle moves one step anticlockwise and the line segment also moves one step anticlockwise along the side of the rectangle and comes out. From Problem Figure (3) to (4) the line segment moves in clockwise direction while other changes are similar as that occurred in the first. As far as pentagon is concerned it moves alternately one step anticlockwise. Again the line

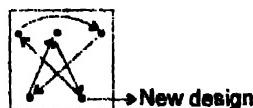
segment of the pentagon moves two steps clockwise along the side of pentagon from Problem Figure (1) to (2), from (3) to (4) and so on.

62. (1) In each subsequent figure respectively one, half, one, half.... leaflet is added in a set order and the pre-existing leaflet (s) reverse (s) and move (s) anticlockwise.

63. (1) In each subsequent figure respectively five, four, three, two, one.... design (s) is/are added in a set order and each design is rotated through 90° clockwise or anticlockwise.

64. (1) In each subsequent figure the pre-existing designs move clockwise and anticlockwise and then interchange positions. Again, a new design is introduced either in clockwise or in anticlockwise direction and it also moves in a set order.

65. (3) The movement and changes in designs from Problem Figure (1) to (2) can be shown as :



**From Problem Figure (3) to (4)**



These two steps are repeated alternately.

66. (4) From Problem Figure (1) to (2) the first two designs from left are reversed vertically while the other two designs interchange position. From Problem Figure (4) to (5) the first design from left is laterally reversed while the four designs are vertically reversed and the two middle designs interchange position. Therefore similar changes would occur from Problem Figure (2) to (3).

67. (1) From Problem Figure (1) to (2) one line segment is deleted from upper left corner design while one line segment is added to the upper right corner design. Similarly, two line segments are deleted from lower right corner design and one line segment is added to the lower left corner design.

From Problem Figure (4) to (5) two line segments are deleted from upper left corner design while two line segments are added to the upper right corner design. Three line segments are added to the lower left corner design and one line segment is deleted from lower right corner design. Therefore, similar changes would occur from Problem Figure (2) to (3).

68. (2) From Problem Figure (1) to (2), one design rotates 135° anticlockwise while other design rotates 45° clockwise and one of the smaller designs is replaced by a new design.

70. (1) In each subsequent figure one, two, one, two....arc (s) is/are added in clockwise direction and the pre-existing arcs are reversed.

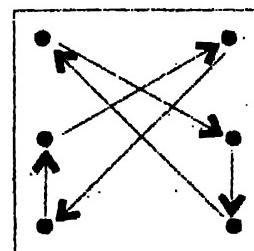
71. (1) From first unit to second unit all the designs are reversed and the topmost design moves to third position, the second design to the fourth position, the third design moves to the second position while fourth design moves to the topmost position.

72. (3) From first unit to second unit the arrow and circle move to the other end of the curve.

73. (5) The pentagon rotates 90° anticlockwise and the line segment moves two steps clockwise from first unit to second unit.

74. (1) From first unit to second unit the first design from left moves to second position after being enlarged. The second design from left moves to third position after being reduced in size. The third design moves to extreme right after being enlarged. The right most design moves to extreme left and it is reduced in size.

75. (2) The movement of the designs from first unit to second unit can be shown as :



□ □ □

# MODEL PRACTICE SET FOR BANK P.O. EXAM.

## GENERAL AWARENESS

1 The Delhi High Court on August 20 gave conditional nod for Telecom package Which of the following is true regarding this ruling ?

(A) Asked private phone companies to give individual undertakings that the migration to the new telecom policy will be subject to approval of the new Council of Ministers

(B) It also left it open for the Election Commission to intervene in the telecom bail out package if it so desired

(C) The Bench directed each operator to file a separate undertaking on oath to the Court

- (1) Only (A)
- (2) Only (B)
- (3) Only (C)
- (4) Only (A) and (B)
- (5) All the three

2 Recently Supreme Court gave its verdict regarding admission quota for Higher Studies Which of the following statement is true ?

(A) That special provisions like reservation for Scheduled Castes (SCs) Scheduled Tribes (STs) or other backward classes were not permissible in admissions to super speciality courses in medicine and engineering

(B) Merit alone can be the merit of selection a five Judge Constitution Bench said

(C) Special provisions are not permissible only in medical courses

- (1) Only (A)
- (2) Only (B)
- (3) Only (A) and (B)
- (4) Only (C)
- (5) None of these

3 The Union Cabinet on July 20 ratified a new protocol Which of the following statement is true regarding the new protocol ?

(1) Government ratified the new protocol to limit the use of mines

(2) And other similar devices to prohibit the transfer and use of blinding laser weapons

(3) The Cabinet approved the ratification of amended protocol II and

the additional protocol IV of the Inhuman weapons convention

- (4) All of the Above
- (5) None of these

4 Recently the Union Government constituted a four member committee to review the events leading to the Pakistani aggression in Kargil and recommend measures to safeguard national security against such armed intrusions The Four-member committee will be headed by—

- (1) Mr George Fernandes
- (2) Mr Brajesh Mishra
- (3) Mr Jashwant Singh
- (4) Mr K Subrahmanyam
- (5) None of these

5 The separatist activists of East Timor hoisted the flag of an independent home land on August 15 Which of the following statement is true About East Timor

(A) East Timor is a disputed province of Indonesia

(B) The ceremony was held at Dilli

(C) The ceremony was attended by a few officials of the United Nations and boycotted by representatives of the Federal Government in Jakarta

- (1) Only (A)
- (2) Only (B)
- (3) Only (A) & (B)
- (4) Only (B) & (C)
- (5) (A) (B) & (C) all are true

6 The third round of Indo French strategic dialogue concluded on July 29 Which of the following statement/s is/are true regarding this strategic dialogue between the two countries

(1) The two countries agreed on a long term bilateral cooperation in defence and aerospace sectors

(2) The two sides discussed the expansion of the United Nations Security Council

(3) Both sides discussed issues relating to arms control and non proliferation

(4) The talks apparently touched on all major issues of arms control including export controls

- (5) All of the above

7 Recently with which country India agreed to utilise the rupee double debt funds for investment in projects in India ?

- (1) Russia
- (2) Albania
- (3) Kazakhstan
- (4) Chechnya
- (5) Ukraine

8 A phase of frosty diplomatic relations between India and Japan ended on July 28 Which of the following statement is true regarding both these countries ?

(1) Mr Masahiko Koumura held a very meaningful meeting with the Indian External Affairs Minister Mr Jaswant Singh in Singapore on the sidelines of the Association of South East Asian Nations (ASEAN) meeting

(2) The two leaders agreed to explore ways to strengthen and broad base bilateral relations

(3) Japan's praise for India's restraint in the Kargil crisis set the tone for the meeting

- (4) All of the above
- (5) None of these

9 Mr Selapan Ramanathan better known as Mr S R Nathan was declared elected on August 16 unopposed as Singapore's

- (1) fourth President
- (2) fifth President
- (3) sixth President
- (4) seventh President
- (5) 8th president

10 The major financial institutions IDBI and IFCI have decided not to provide any fresh loan or assistance to the pharmaceutical industry for undertaking

- (1) basic research
- (2) new molecules development
- (3) delivery systems and training on the international patenting region
- (4) None of these
- (5) All of the above except (4)

11 B G Deshmukh's Committee set up by SEBI to regulate the mutual funds industry has recommended that mutual funds should be permitted to invest only up to 5% of their asset value in a particular company

- (1) 10 per cent
- (2) 15 per cent
- (3) 25 per cent
- (4) 50 per cent
- (5) 35 per cent

**12. 26th National Management Convention** was held recently at—

- (1) Chennai (2) Bangalore
- (3) Mumbai (4) Calcutta
- (5) New Delhi

**13. The Government is working on a Rs. 1,500 crore bail out package for three public sector banks. The ailing banks are—**

- (1) UBI, SBI and PNB
- (2) Indian Bank, United Commercial Bank and United Bank of India
- (3) Indian Bank, SBI and Punjab and Sindh Bank
- (4) Kanara Bank, SBI and PNB
- (5) None of these.

**14. According to a recent judgement of the Supreme Court of India, interest income on sticky advances is—**

- (1) liable to income tax
- (2) liable to sales tax
- (3) not liable to income tax
- (4) liable to excise duty
- (5) None of these.

**15. Windows 2000 operating system, which is going to be launched shortly in India is the product of—**

- (1) Microsoft
- (2) Macro Graphics
- (3) Magic Software
- (4) TCS
- (5) None of these

**16. Indian Bank's Association (IBA)** has come out with a comprehensive set of guidelines IBA code for banking practices. The guidelines are intended to promote

- (1) healthy relationships among bank employees
- (2) healthy relationships among different public sector banks
- (3) healthy relationship of employees with the management
- (4) healthy relationship between banks and their customers
- (5) None of these.

**17. The Securities and Exchange Board of India (SEBI)** on 17th August approved the final draft regulations for collective investment schemes (CIS), such as those floated by plantation companies. The draft regulations are based on the report of the—

- (1) S.A. Dave Committee
- (2) Sridhar Committee
- (3) Venugopal Committee
- (4) Bharati Sharma Committee

- (5) None of these.

**18. Which of the following statements about leather garments export is false?**

- (1) From 1984-85 leather garments exports from the country rose substantially.

- (2) During the last two years exports slowed down.

(3) Exports from the northern region accounts for 47 per cent of the total exports.

(4) India tops the list of countries exporting leather garments.

- (5) Both (2) and (3)

**19. India's car industry in the first four months of the fiscal 1999-2000 has shown a growth rate of—**

- (1) 10 per cent (2) 20 per cent
- (3) 30 per cent (4) 50 per cent
- (5) 40 per cent

**20. World's biggest floating runway is under construction in—**

- (1) the USA (2) China
- (3) the UK (4) Japan
- (5) None of these

**21. What is 'Nostro Accounts'?**

- (1) Accounts of Indian banks abroad
- (2) Accounts of foreign banks in Indian banks
- (3) Accounts of Indian nationals in foreign banks
- (4) Accounts of Indian nationals in foreign banks
- (5) Accounts of foreigners in Indian banks

**22. First Indian petroleum company to enter the retail market of another country (Nepal) is—**

- (1) ONGC
- (2) Hindustan Petroleum
- (3) Indian Oil Corporation
- (4) Oil India Ltd.
- (5) Assam Oil

**23. According to Reserve Bank of India's annual report for the year 1998-99, real GDP growth in 1999-2000 is likely to be—**

- (1) more than 5%
- (2) between 6 to 6.5 per cent
- (3) more than 7 per cent
- (4) less than 7 per cent
- (5) less than 5 per cent

**24. After the Supreme Court judgement of 27th July 1999, the users of the services of goods transport operators are now responsible for paying**

- (1) 5 per cent service tax
- (2) 10 per cent service tax
- (3) 15 per cent service tax

**(4) no service tax through they used to pay 5 per cent earlier**

- (5) None of these.

**25. India's first battery operated three-wheeler, Biljee is produced by—**

- (1) Bajaj Auto
- (2) Mahindra and Mahindra
- (3) Ashok Leyland
- (4) Hero Honda
- (5) Nissan

**26. The Swarn Kaimal for the best feature film in National Film Awards has gone to the Hindi film "Samar". The Director of this film is—**

- (1) Subhash Ghai
- (2) Shekhar Kapoor
- (3) Sabana Azami
- (4) Shyam Benegal
- (5) None of these

**27. The Author of the book "Diplomacy For The Next Century" is—**

- (1) Henry Kissinger
- (2) Abba Eban
- (3) P. Chidambaram
- (4) APJ Abdul Kalam
- (5) None of these.

**28. Who among the following is the author of the book "Listening Now"?**

- (1) Shobha De
- (2) Anita Desai
- (3) Anjana Apachana
- (4) Khushwant Singh
- (5) None of these.

**29. Recently, which company has claimed to have developed a complete range of nuclear missiles and other strategic weapon systems to fight in all types of war-fare ?**

- (1) India (2) America
- (3) France (4) China
- (5) Russia

**30. Who among the following has been chosen as the first recipient of Mother Teresa International Award for his 'relentless' help in her work for the poor ?**

- (1) Medha Patkar
- (2) Arundhati Roy
- (3) Jyoti Basu
- (4) Mamata Bannerjee
- (5) Sidharth Shankar Ray

**31. The renowned educationist and social reformer who has been selected for 1998 Rajiv Gandhi National Sadbhavana Award is—**

- (1) R. Chidambaram
- (2) Jagannath Kaul
- (3) Shyam Benegal
- (4) Shabana Azmi
- (5) None of these.

**32. Which among the following**



# NIFT (GARMENT DESIGN) EXAM.

Held on 04.06.99

## ANALYTICAL ABILITY

Based on Memory

**Directions (1-8) :** Each of the questions given below consists of a question and two statements labelled I and II. You are to decide whether the data given in the statements are sufficient to answer the question or not. Using the data and your knowledge of everyday facts, make the appropriate choice from (1) to (4) as per the following guidelines. Mark answer:

(1) If statement I alone is sufficient to answer the question asked.

(2) If statement II alone is sufficient to answer the question asked.

(3) If both statements I and II together are sufficient to answer the question asked, but neither statement alone is sufficient.

(4) If either statement by itself is sufficient to answer the question.

1. Is  $2^n$  divisible by 8?

I. n is an odd number.

II. n is an integer greater than 5.

2. What is the area of the circle?

I. The diameter of the circle is 4.

II. The circumference of the circle is  $4\pi$ .

3. What percent of X is Y?

I.  $3X = 5Y$

II. Y is 60% of X

4. Is X an integer?

I.  $X > 0$

II.  $16 + 9 = X \times X$

5. What is the value of  $X + Y$ ?

I.  $X + Y + Z = X + Y - Z + 1$

II.  $X + Y + Z = 0$

6. What is the value of  $\frac{x^3 y^2 z^4}{z^3 x^4 y^2}$

I.  $x = 2$

II.  $z/x = 2$

7. Which is larger :  $a^b$  or  $b^a$ ?

I.  $a = 1$

II.  $b > 2$

8. Is x positive?

I.  $x^2 + 3x - 4 = 0$

II.  $x > -2$

9. If FLOWER is written as IIRTHO, PETAL will be written as :

(1) SBWYP (2) SBXWO

(3) SBWXO (4) IIRWP

10. The numbers which will continue the series.

3, 5, 6, 11, 12, 23, 24, 47, 48,.....

(1) 95, 97

(2) 99, 100

(3) 97, 99

(4) None of these

11. Which of the following is an odd man out :

(1) Royal (2) Regal

(3) Imperial (4) Official

**Directions (12-18) :** In each of the questions given below are having a set of two words related through a specific relationship with each other and these are given on the left side of sign (:) . You are to identify the relationship and choose the alternative pair which expresses the same relationship between the two words and should come on the right of (:).

12. Conservator : Waste ::

(1) Sentinel : Subject

(2) Monarch : Subject

(3) Chaperon : Transgression

(4) Minister : Profanity

13. Projectile : Trajectory ::

(1) Satellite : Orbit

(2) Bullet : Weapon

(3) Project : Tragedy

(4) Rejection : Renunciation

14. Famine : Hunger ::

(1) Conflagration : Burning

(2) Pessimist : Dismay

(3) Stupidity : Failure

(4) Compound : Mixture

15. Fringe : Centre ::

(1) Glass : Pitcher

(2) Outside : Door

(3) Farm : Fence

(4) Minor : Major

16. Italy : Milan ::

(1) Moscow : Russia

(2) Manhattan : New York

(3) Dhaka : Calcutta

(4) India : Delhi

17. Nitrogen : Gaseous ::

(1) Oxygen : Organic Matter

(2) Lead : Heavy

(3) Feather : Weightless

(4) Mercury : Fluid

18. Appeal : Refusal ::

(1) Obesity : Beauty

(2) Deny : Confirmation

(3) Try : Failure

(4) Try : Repeat

**Directions (19-22) :** For answering the following questions read the following information.

A jazz group plans to play six pieces—J, K, L, M, N and O. Each piece will be played exactly once. The order in which the pieces are to be played is subject to the following conditions :

N must be played before J and O.

M must be played later than J.

K must be the third piece.

19. If the group plays L first, which piece must be played second?

(1) J (2) N

(3) M (4) K

20. If the group plays L sixth, which of the following could be the first and second pieces of the set, respectively?

(i) N and J (ii) N and O

(iii) J and O

(1) i only (2) ii only

(3) i & ii only (4) i & iii only

21. All of the following could be played immediately except :

(1) N (2) J

(3) L (4) M

22. Which of the following could be the order in which the pieces are played?

(1) KLNOMJ (2) NLKJOM

(3) KGNJML (4) MJKOLN

**Directions (23-25) :** For answering the following questions read the following information.



# NIFT (GARMENT DESIGN) EXAM.

Held on 04.06.99

ENGLISH

Based on Memory

**Directions (1-8) :** Read the following two passages and answer the questions given below them.

**PASSAGE-1**

The conservative is not an extreme individualist. He may be willing to concede numerous arguments of the unqualified individualists, for his own respect for the dignity of the individual is not surpassed by that of any man. Yet he cannot agree to the full implications of individualism, which is based, so he thinks, on an incorrect appraisal of man, society, history, and government. In his own way, the individualist is as much a perfectionist as the socialist, and with perfectionism the Conservative can have no truck.

In particular, the conservative refuses to go all the way with economic individualism. His distrust of unfettered man, his recognition to groups, his sense of the complexity of the social process, his recognition of the real services that government can perform—all these sentiments make it impossible for him to subscribe to the dogmas and shibboleths of economic individualism: laissez-faire, the negative state, enlightened self-interest, the law of supply and demand, the profit motive. The conservative may occasionally have kind word for each of these notions, but he is careful to qualify his support by stating other, more important social truths. For example, he does not for a moment deny the prominence of the profit motive, but he insists that it be recognised for the selfish thing it is and be kept within reasonable, socially imposed limits.

1. The conservative is

- (1) A perfectionist
- (2) An economist
- (3) A socialist
- (4) None of these.

2. The conservative is against

Economic individualism for all the following reasons except

- (1) He does not trust free men
- (2) he believes in the authority of the government
- (3) he believes in groups
- (4) He feels that social processes are important

3. The author mentions all the following catchwords of economic individualism except

- (1) Free trade
- (2) The profit motive
- (3) Balance of trade
- (4) The negative state

4. Which of the following words can replace the word 'truck'?

- (1) Dealing
- (2) Bargain
- (3) Debate
- (4) Transport

5. Which of the following statements is true?

- (1) The socialist and the Individualist tend to be broadly similar in their views
- (2) The conservative believes that profit motive originates in selfishness
- (3) The conservative is also an extreme Individualist
- (4) None of these.

**PASSAGE-2**

Our country is facing a severe environment crisis. If it is not tackled on a war footing, it will certainly lead to socio-economic and ecological disaster, which will seriously affect the lives of millions of people, especially the poor. Government data usually underestimate the extent of environmental destruction. The recent satellite data have revealed that India is losing millions of hectares of forest every year which is many times more than the annual rate of deforestation put out by the forest department.

6. The latest data regarding loss

of forests have been collected by

- (1) State government
- (2) Environmentalists
- (3) Satellite
- (4) Indian farmers

7. If India's environmental problem is not dealt with urgently, it will

- (1) Lead to war
- (2) Make people unemployed
- (3) Create problem of poverty
- (4) Ruin the ecology of the country.

8. The amount of environmental damage as indicated by official figures is:

- (1) More than the actual damage
- (2) Much less than the actual one
- (3) As much as it really is
- (4) Not very alarming.

**Directions (9-15) :** Look at the underlined part of each sentence. Below each sentence are given three possible substitutions for the underlined part. If one of them (1), (2) or (3) is better than the underlined part, indicate your response. If none of the substitutions improve the sentence, indicate (4) as your response. Thus a 'No improvement' response will be signified by (4).

9. The Cheetah can run faster than the gazelle; it is the speediest of the two.

- (1) the most speedier
- (2) more speedy
- (3) the speedier
- (4) No improvement

10. I will look you up next time I am in Mumbai.

- (1) look you through
- (2) look you over
- (3) look you around
- (4) No improvement

11. He congratulated me for my being elected as Member of Parliament.

- (1) on my being

- (2) in my being  
 (3) at my being  
 (4) No improvement
12. Often one is hearing reports of explosions in the provinces.  
 (1) was hearing  
 (2) hears  
 (3) has been heard  
 (4) No improvement
13. When you left that job ?  
 (1) did you leave  
 (2) would you left  
 (3) you have left  
 (4) No improvement
14. Every man and woman in the village was present at the festival.  
 (1) are  
 (2) were  
 (3) have  
 (4) No improvement
15. His legs were badly injured while passing through the thorny bushes.  
 (1) damaged  
 (2) bruised  
 (3) thrashed  
 (4) No improvement
- Directions (16-20) :** In this section you find a number of sentences, parts of which are underlined. You may also find only a group of words which is underlined. For each underlined part, four words/phrases are listed below. Choose the word/phrase nearest in meaning to the underlined part.
16. Grouping stars by constellations is handy way of mapping the sky ?  
 (1) Nice  
 (2) Funny  
 (3) Manual  
 (4) Convenient
17. It was a momentous event in the history of the nation.  
 (1) An insignificant  
 (2) An everlasting  
 (3) An important  
 (4) A sudden
18. The learned professor has written exhaustive notes on his book of poems.  
 (1) Useful  
 (2) Comprehensive  
 (3) Detailed  
 (4) Adequate
19. Gandhi and Nehru considered

- prisons as places for recuperation after public appearances.  
 (1) Reflection  
 (2) Ruminations  
 (3) Rejuvenation  
 (4) Recovery
20. Centuries ago, so goes tradition, a nomadic tribe besieged the temple to loot its treasure.  
 (1) Roving  
 (2) Barbarous  
 (3) Brave  
 (4) Wild
- Directions (21-30) :** In the following passage, there are blanks, each of which has been numbered. These numbers are printed below the passage and against each, four words are suggested, one of which fits the blank appropriately. Find out the appropriate word in each case.
- Technology in education 21 the necessary instrumentality through which educational process can be enriched and 22 optimised. Its unique 23 are outreach and responsiveness to individual nature and 24. Emphasising the 25 of computers in educational process, the programme of action recommends that computers can play an important role in 26 the efficiency of the teaching 27 process to 28 children more creative and provide them with the individualised learning 29. Computer literacy will be crucial in 30 children to cope with the technological advancement.
21. (1) gets  
 (2) explores (3) suggests  
 (4) provides
22. (1) thinking  
 (2) timing (3) teaching  
 (4) learning
23. (1) topics  
 (2) types (3) messages  
 (4) contributions
24. (1) types  
 (2) steps (3) zeal  
 (4) needs
25. (1) goal  
 (2) emphasis (3) type  
 (4) role
26. (1) retaining  
 (2) activating (3) enhancing  
 (4) curtailing
27. (1) model  
 (2) taught (3) learning

- (4) teacher  
 28. (1) development  
 (2) provide (3) make  
 (4) grow
29. (1) stages  
 (2) needs (3) types  
 (4) environment
30. (1) teaching  
 (2) asking (3) modifying  
 (4) preparing

### SHORT ANSWERS

1. (3) 2. (4) 3. (3) 4. (1)  
 5. (3) 6. (3) 7. (4) 8. (2)  
 9. (3) 10. (4) 11. (1) 12. (2)  
 13. (1) 14. (4) 15. (2) 16. (4)  
 17. (3) 18. (3) 19. (4) 20. (1)  
 21. (4) 22. (4) 23. (4) 24. (1)  
 25. (4) 26. (3) 27. (1) 28. (3)  
 29. (4) 30. (4)

### ANSWERS WITH EXPLANATION

1.(3) If we consider the last sentence of the passage, it seems that the conservative is a socialist. "..... he insists that .... be kept within reasonable, socially imposed limits."

That shows that a conservative attaches considerable importance to social norms. From that point of view we can conclude that a conservative is a socialist.

2. (4) "His distrust of unfettered man, his recognition to groups, his sense of the complexity of the social process, his recognition of the real services that government can perform .... all these sentiments made it impossible for him to subscribe to the dogmas and shibboleths of economic individualism....."

If we analyse this statement, we find option (4) as an exception. Regarding social process it is said that a conservative does not believe in individualism as he considers social process complex. From that, we cannot infer that social processes are important. Therefore the answer is (4).

3.(3) The term balance of trade finds mention nowhere in the passage.

Nor even there is any indication in this direction. So, the answer is (3).

4.(1) Have no truck as used in the passage means refuse to deal or associate with somebody (perfectionists). It may also mean refuse to tolerate or consider something.

See the meaning which it bears in the following sentence :

I will have no truck with extremists.

The above sentence means—I will have no dealing with extremists.

This shows that we can substitute truck with dealing. This is also true in case of the word truck as used in the passage. So, we can decide in favour of option (1).

5.(3) The very first sentence of the passage runs thus :

"The conservative is not an extreme individualist".

Now, how can we say that the conservative is also an extreme individualist.

6.(3) "The recent satellite data ...."

This shows that the latest data is made available by the satellite.

7.(4) In one place it is said that : "If it is not tackled on a war-footing, it will certainly lead to socio-economic and ecological disaster, which will seriously effect the lives of millions of people, specially the poor."

From the term **ecological disaster** we can infer that if India's environmental problem is not dealt with urgently, it will ruin the ecology of the country.

**Make people unemployed or create problem of poverty** can not be selected as there is no direct assertion supporting that.

8.(2) "Government data usually understate the extent of environment destruction."

So we can conclude that the amount of environment damage as indicated by official figures is much less than the actual one.

9.(3) When we compare between two things or beings, we use Comparative Degree Adjective.

For example,  
He is more talented between the two.

#### Comparative Degree

In the given sentence also, the speediest (Superlative Degree) should be replaced with the speedier (Comparative Degree); as the comparison is between two beings—Cheetah and Gazelle.

10.(4) **Look up** means search for somebody's house so as to visit (him) : (old friend, acquaintance)

For example,  
I have promised that the next time I go to London I will look him up.

—Page 224, Oxford Dictionary of Phrasal Verbs.

So, the use of *look you up* in the given sentence is appropriate in all respects.

11.(1) **Congratulation** means give one's good wishes, express pleasure and approval to (somebody) in connection with some event or achievement.

We congratulate someone on something.

Therefore, in the given sentence for my being should be replaced with on my being.

12.(2) Often cannot be used with Continuous Tense.

Therefore Present Indefinite Tense should be used in place of Continuous Tense.

Is hearing should be replaced with hears.

13.(1) In an interrogative sentence we use Auxiliary Verb before the subject. The structure is—

AUXILIARY VERB + SUBJECT + PRINCIPAL VERB

So, the structure : "Did you leave" is appropriate one.

14.(4) If two Nouns are joined by and preceded by every, the Verb used should be in the singular form.

For example,  
(i) Every student was happy.  
(ii) Every boy and girl was present  
↓ ↓ ↓  
Noun and Noun  
there.

So, the use of was in the sentence is correct.

15.(2) A bruise is an injury which appears as a purple mark on your body, although the skin is not broken.

If you *bruise* a part of your body, a bruise appears on it. Bruises appear when something hits you only slightly.

For example,  
I had only bruised my knee.

When somebody passes through a thorny bushes, generally bruise appears on his body. So bruised is more appropriate in the given case, in comparison to injured.

16.(4) Handy means (1) convenient to handle or use; useful (2) conveniently placed for being reached or used.

For example,  
Our flat is very handy for the schools.

Very clearly, in this sentence we can replace handy with convenient.

If we consider the meaning which the word handy expresses in the given sentence then also we must choose (4) as the answer.

17.(3) Momentous means very important; serious : a momentous decision, occasion, event.

So, an important is nearest in meaning to a momentous.

—Page 800, Oxford Advanced Learner's Dictionary.

18.(3) Exhaustive means very thorough; complete : an exhaustive enquiry, search.

Detailed means having many details or paying great attention to details, thorough : a detailed description, account, analysis, etc.

In comparison we find that detailed is nearest in meaning to exhaustive.

19.(4) Recuperate (Verb) means recover from illness, exhaustion or loss, etc.

For example,  
He is still recuperating from his operation.

So recovery is nearest in meaning to recuperation.

—Page 1052, Oxford Advanced Learner's Dictionary

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# ROORKEE UNIVERSITY MBA EXAM.

Held on 16.05.99

## MATHEMATICS

Based on Memory

1. If  $7x - 5y = 13$ ;  $2x - 7y = 26$ ;  
 $9x - 12y = ?$

- (1) 13      (2) 26  
 (3) 39      (4) 42

2. If  $4y - x = 10$ ;  $3x = 2y$ ;  $xy = ?$

- (1) 2      (2) 3  
 (3) 6      (4) 12

3. Sandhya is two years younger than Madhuri. If Madhuri is  $m$  years old, how old was Sandhya two years ago?

- (1)  $m + 2$       (2)  $m - 4$   
 (3)  $m - 2$       (4)  $m + 4$

4. A shopkeeper sold  $n$  articles at Rs. D and made a profit of Rs. r. The cost to the shopkeeper for each article was.

- (1)  $Dn - r$       (2)  $(Dn - r) / n$   
 (3)  $D(n - r)$       (4)  $(Dn + r) / n$

5. How many kilometers does a car travel if it averages a rate of 35 kilometers per hour for 3 hours and 24 minutes?

- (1) 109      (2) 113  
 (3) 112      (4) 119

6. Ashu can weave a carpet in 10 hours. Mita can do the same in 5 hours. If they both do it together, it can be completed in

- (1) 6 hours      (2) 7 hours 30 minutes  
 (3) 3 hours      (4) 3 hours 20 minutes

7. It was calculated that 75 workers could complete a strip on a new highway in 20 days. When the project was scheduled to commence, 25 workers fell ill and left. How much longer will it take to complete the strip?

- (1) 10 days      (2) 20 days  
 (3) 30 days      (4) 40 days

8. A man left Rs. 500,000 to his three sons. For every rupee Amar received, Brijmohan received Rs. 1.50 and Chellury received Rs. 2.50. How much money was left to Brijmohan?

- (1) Rs. 75,000      (2) Rs. 90,000  
 (3) Rs. 150,000      (4) Rs. 180,000

9. If  $p < q$  and  $r < s$ , then

- (1)  $p + q < r + s$   
 (2)  $p + q > r + s$   
 (3)  $p + r > q + s$   
 (4)  $p + r < q + s$

10. How many degrees are there in an angle formed by the hands of a clock at 2 : 30 ?

- (1) 100      (2) 105  
 (3) 110      (4) 115

11. A pond 100 feet in diameter is surrounded by a circular grass walk, which is 2 feet wide. How many square feet of grass are there on the walk?

- (1)  $100\pi$       (2)  $204\pi$   
 (3)  $98\pi$       (4)  $102\pi$

12. A lending library charges Rs.  $x$  for the first week that a book is loaned and Rs.  $y$  for each day over one week. What is the cost for taking out a book for  $d$  days, where  $d > 7$ ?

- (1)  $x + yd$       (2)  $x + y(d - 7)$   
 (3)  $xd$       (4)  $xd + y$

13. In what time will the simple interest on Rs. 1750 at 9% per annum be the same as that on Rs. 2500 at 10.5% per annum in 4 years?

- (1) 5 years and 9 months  
 (2) 6 years and 8 months  
 (3) 7 years and 3 months  
 (4) None of these

14. A man drives along the perimeter of a square of side  $x$  km. in a car with different speeds. He drives with speeds of 20 km., 40 km., 30 km. and 60 km. per hour respectively along consecutive sides. What is his average speed?

- (1) 28      (2) 32  
 (3) 36      (4) 37.5

15. Pointing to a man in a photograph, Sita said, "His brother's father is the only son of my grandfather". How is Sita related to the man in the photograph?

- (1) Mother      (2) Father  
 (3) Sister      (4) Daughter

16. Sunita, who is Rockey's

daughter, says to Seema, "Your mother Rakhi is younger sister of my father who is the third child of Prem Kumar".

Determine the relation of Prem Kumar with Seema.

- (1) Grandfather      (2) Father  
 (3) Uncle      (4) Brother

17. A number  $p$  when divided by 2911 gives 111 as remainder. Determine the remainder when  $p$  is divided by 41.

- (1) 29      (2) 31  
 (3) 23      (4) 37

18. Find  $\log_2 4096$

- (1) 10      (2) 11  
 (3) 12      (4) 13

19. Find the sum of  $1 + 2 + 3 + \dots + 97 + 98 + 99$ .

- (1) 5050      (2) 5000  
 (3) 4950      (4) 4900

20. There are 1400 students in a school; 1250 of them can play football, 952 can play cricket and 60 students cannot play either of the games. How many students can play both the games?

- (1) 952      (2) 862  
 (3) 800      (4) 892

21. If  $x - y = 7$  and  $5x + 2y = 14$ , then determine value of  $x + y$ .

- (1) 1      (2) 0  
 (3) -1      (4) 2

22. How much of 26% sulphuric acid should be mixed with 40 kg of 68% acid to get an acid whose concentration is 32%?

- (1) 360 kg      (2) 320 kg  
 (3) 240 kg      (4) 160 kg

23. A solid cube of each side 8 cm, has been painted red, blue, and green on pairs of opposite faces. It is then cut into cubical blocks of each side 2 cm. How many cubes have no face painted?

- (1) 2      (2) 4  
 (3) 8      (4) 12

24. Six persons A, B, C, D, E, F are sitting in two rows, three in each.

E is not at the end of any row. D is second to the left of F, C, the neighbour of E, is sitting diagonally opposite to D. B is the neighbour of F. After interchanging seat with E, who will be neighbours of D in the new position.

- (1) C and A (2) F and B  
(3) Only B (4) Only A

25. In how many ways five books, Geeta, Geetanjali, My Experiments with Truth, Discovery of India, and The Himalayan Blunder can be arranged in a book-shelf.

- (1) 120 (2) 320  
(3) 1024 (4) 3125

26. Solve the system of equations :

$$\begin{aligned}x + y &= 3 \\2x + 2y &= 8\end{aligned}$$

(1)  $x = 3, y = 0$  (2)  $x = 0, y = 4$   
(3)  $x = 1, y = 2$  (4) No solutions

27. Probability of Rakesh passing an examination in  $\frac{1}{2}$  and of Gopal is  $\frac{3}{4}$ . If both appear in the examination, find the probability that both will pass.

- (1)  $\frac{3}{8}$  (2)  $\frac{1}{8}$   
(3)  $\frac{5}{8}$  (4)  $\frac{5}{4}$

28. Varun travelled 7 km eastward, then turned left and travelled 5 km. Next, he turned left and travelled 7 km. How far was he from the starting point?

- (1) 5 km (2) 19 km  
(3) 12 km (4) 0 km

29. A man says to his son, "Seven years ago I was seven times as old as you were, and three years hence I shall be three times as old as you." Find the age of father.

- (1) 32 (2) 36  
(3) 40 (4) 42

30. Thirty six men and boys employed to do a piece of work and are paid Rs. 260/- in all. If men are paid Rs. 8/- and boys Rs. 6/- each, then find the number of men employed.

- (1) 22 (2) 24  
(3) 25 (4) 26

31. A can do a piece of work in 12 days, B in 18 days and C in 24 days. All begin work together but B leaves the work after 3 days and C leaves the work 4 days before its completion. How long did the work last?

- (1) 6 days (2) 8 days  
(3) 10 days (4) 12 days

32. A takes 5 days more to do a

certain job than B, and 9 days more than C; A and B together can do the job in the same time as C. How many days A would take to do it?

- (1) 5 (2) 10  
(3) 15 (4) 20

33. Rakhi faces towards north. Turning to her right, she walks 25 m. She then turns to her left and walks 30 m. Next, she moves 25 m. to her right. She then turns to her right again and walks 55 m. Finally, she turns to the right and moves 40 m. Which direction is she now from her starting position?

- (1) South-West (2) South  
(3) North-West (4) South-East

34. Six persons A, B, C, D, E, F are standing in a circle. B is between F and C, A is between E and D; F is to the left of D. Who is between A and F?

- (1) B (2) C  
(3) E (4) D

35. A man engaged a servant for 50 days and promised to pay an umbrella and Rs. 100/-. After 30 days the man received an umbrella and Rs. 36/-. What was the cost of umbrella?

- (1) 60 (2) 72  
(3) 84 (4) 96

36. A sum of money is equally divided among a number of children; had there been 16 children more, each would have received Rs. 2/- less and had there been 16 fewer, each would have received Rs. 3/- more. Find the sum of money distributed.

- (1) 880 (2) 896  
(3) 928 (4) 960

37. Find the mean proportional between 16 and 25.

- (1) 4 (2) 5  
(3) 20 (4) 23

38. What number must be added to each of the numbers 7, 11, 19 so that the resulting numbers may be in continued proportion?

- (1) -3 (2) 3  
(3) -4 (4) 4

39. What number must be added to each of the numbers 2, 3, 10, 13 to form numbers in proportion?

- (1) 1 (2) 2  
(3) 3 (4) 4

40. Find the missing number among 21, 30, 38, ?, 51, 56, 60

- (1) 35 (2) 55  
(3) 45 (4) 65

### SHORT ANSWERS

1. (3) 2. (3) 3. (2) 4. (1)  
5. (4) 6. (4) 7. (3) 8. (3)  
9. (4) 10. (2) 11. (2) 12. (2)  
13. (2) 14. (4) 15. (3) 16. (1)  
17. (1) 18. (3) 19. (3) 20. (2)  
21. (1) 22. (3) 23. (3) 24. (1)  
25. (1) 26. (4) 27. (1) 28. (1)  
29. (4) 30. (1) 31. (2) 32. (3)  
33. (4) 34. (4) 35. (1) 36. (4)  
37. (3) 38. (1) 39. (2) 40. (3)

### ANSWERS WITH EXPLANATION

$$\begin{aligned}1. (3) \quad 7x - 5y &= 13 \\2x - 7y &= 26\end{aligned}$$

Solving equation (i) and (ii)

$$x = -1$$

$$y = -4$$

Substituting the value in equation

$$9x - 12y$$

$$-9 + 48 = 39$$

$$2. (3) \quad 4y - x = 10$$

$$2y - 3x = 0$$

Solving equation (i) and (ii)

$$x = 2$$

$$y = 3$$

$$\therefore x \times y = 6.$$

4.(1) Selling Price (S.P.) = n.D

Profit = r

Cost Price (C.P.) = S.P. - Profit

$$= n.D - r$$

5.(4) Distance = Speed  $\times$  Time

$$= 35 \times \left( 3 + \frac{24}{60} \right)$$

$$= 119 \text{ km.}$$

6.(4) In 1 hour Ashu can do —

$$\frac{1}{10} \text{ th of work.}$$

In 1 hour Mita can do —

$$\frac{1}{5} \text{ th of work.}$$

If they work together, then

In 1 hour they can do —

$$\left(\frac{1}{10} + \frac{1}{5}\right) \text{ th of work.}$$

$$= \frac{3}{10} \text{ th of work.}$$

$\therefore$  Total work can be done in  $\frac{10}{3}$  hours

= 3 hours 20 minutes.

7.(3) If 25 workers left then  $(75 - 25) = 50$  workers remained.

75 workers can complete in 20 days.

1 worker can complete in  $20 \times 75$  days.

50 workers can complete in

$$\frac{25 \times 75}{50} \text{ days}$$

8.(3) If Amar received  $x$  rupees. then Brijmohan received  $1.5x$  rupees

and Chellury received  $2.5x$  rupees.

$$\text{Total} = x + 1.5x + 2.5x = 500,000$$

$$5x = 500,000$$

$$x = 100,000$$

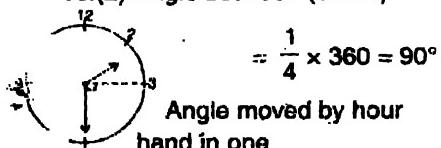
Money left for Brijmohan =  $1.5x$  = Rs. 150,000

9.(4)  $p < 2$  .....(i)  
 $r < s$  .....(ii)

Adding (i) and (ii)

$$p + r < q + s$$

10.(2) Angle between (3 to 6)



$$= \frac{1}{4} \times 360 = 90^\circ$$

Angle moved by hour hand in one

$$\text{hour} = \frac{360}{12} = 30^\circ.$$

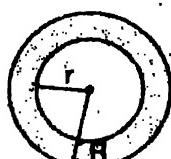
$\therefore$  Angle between (2 to 3) =  $30^\circ$

$\therefore$  half of angle moved in half hour =  $15^\circ$

Total angle at (2 : 30) between hour and minute hands

$$= 90 + 15 = 105^\circ.$$

11.(2) Radius of inner circle ( $r$ ) = 50 ft.



Radius of outer circle ( $R$ )

$$= 50 + 2 = 52 \text{ ft.}$$

Area in between two circles

$$= \pi (R^2 - r^2)$$

$$= \pi (R - r)(R + r)$$

$$= \pi (52 - 50)(52 + 50)$$

$$= \pi (2)(102) = 204 \pi \text{ sq. ft.}$$

Area of the grass on walk

$$= 204 \text{ sq. ft.}$$

12.(2) Charge for 1st week (7 days)

$$\text{No. of days left} = d - 7$$

Charge for  $(d - 7)$  days

$$= y(d - 7) \text{ Rs.}$$

$$\text{Total charge} = x + y(d - 7) \text{ Rs.}$$

13.(2) Let the time be  $t$  years.

$$\frac{1750 \times t \times 9}{100} = \frac{2500 \times 4 \times 10.5}{100}$$

$$\therefore t = \frac{20}{3} \text{ years}$$

= 6 years 8 months

14.(4) Average speed

$$= \frac{20 + 40 + 30 + 60}{4} = \frac{150}{4}$$

$$= 37.5 \text{ km/hr.}$$

$$17.(1) \frac{P}{2911} + 111 = \frac{P}{41} + \frac{111}{41}$$

2911 when devide by 41 gives no remainder.

$\therefore$  When  $P$  divided by 41 gives  $111 - 41 \times 2 = 111 - 82 = 29$  as remainder.

$$18.(3) \log_2 4096 = \log_2 2^{12} = 12 \log_2 2 = 12 \quad [\because \log_a a = 1]$$

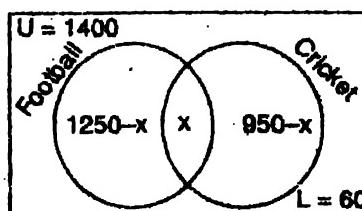
19.(3) Sum of Natural Number

upto 'n' is given by  $\frac{n(n+1)}{2}$

$$1 + 2 + \dots + 99 = \frac{99(99+1)}{2}$$

$$= \frac{9900}{2} = 4950$$

20.(2) Let  $x$  player play both cricket and football.



$\therefore 1250 - x$  - plays only football.

$950 - x$  - plays only cricket.

60 - Does play any game.

$$\therefore \text{Total} = 1250 - x + x + 950 - x +$$

60

$$1400 = 2262 - x$$

$$x = 862$$

$$21.(1) x - y = 7 \quad \dots \text{(i)}$$

$$5x + 2y = 14 \quad \dots \text{(ii)}$$

Solving equation (i) and (ii)

$x = 4$  Substituting the value in  $y = -3$  equation  $x + y = 4 - 3 = 1$

22.(3) Let  $x$  kg of 26% sulphuric acid is mixed.

then

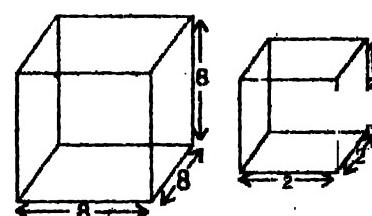
$$\frac{68}{100} \times 40 + \frac{26}{100} \times x = \frac{32}{100} \times (40 + x)$$

$$2720 + 26x = 1280 + 32x$$

$$1440 = 6x$$

$$\therefore x = 240 \text{ kg.}$$

23.(4)



Let no. of small cubes =  $n$

$\therefore$  No. of small cubes

$$\Rightarrow 8^3 = n \times 2^3$$

$$n = 64$$

No. of cubes with at least one face coloured.

$$= 16 + 8 + 16 + 8 + 4 + 4 = 56$$

$\therefore$  No. of cubes with none of the face coloured =  $64 - 56 = 8$

24.(1)

C — F

E — B

A — D

The arrangement is done as per information given in the question.

After changing the place of E and D.

C — F

D — B

A — E

A and C are the neighbour of D in the new position.

25.(1) The No. of ways in which books can be arranged = 5!

$$= 5 \cdot 4 \cdot 3 \cdot 2 \cdot 1 = 120 \text{ ways.}$$

$$26.(4) x + y = 3$$

$$2x + 2y = 8 \Rightarrow x + y = 4$$

at a some time  $x + y$  can not be equal to 3 and 4 both

$\therefore$  Equation has no solution.



# Management Aptitude Test

## DATA ANALYSIS AND SUFFICIENCY

**Held on 05.09.99**

**Based on Memory**

**Direction (1-25) :** Each of the following question Nos. 1 to 25, below is followed by two statements, labelled (P) and (Q), in which certain data are given. In these questions you do not actually have to compute an answer, but rather you have to decide whether the data given in the statements are sufficient for answering the question. Using the data given in the statements plus your knowledge of mathematics and everyday facts (such as the number of days in a month) you are to choose the answer.

(1) If statement (P) alone is sufficient but, statement (Q) alone is not sufficient to answer the question asked.

(2) If statement (Q) alone is sufficient, but statement (P) alone is not sufficient to answer the question asked.

(3) If both statement (P) and (Q) together are sufficient to answer the question asked, but neither statement alone is sufficient.

(4) If statements (P) and (Q) together are not sufficient to answer the questions asked and additional data specific to the problem are needed.

1. On a certain auto race track, cars' average speed is 160 MPH. What is the length of the track?

(P) On straight sections, cars can go at 100 MPH.

(Q) Average lap time (once around the track) is 1 minute, 4 seconds.

2. How many tons of cement will be needed for the foundation of an apartment building?

(P) The entire building will require 5000 tons of cement.

(Q) The volume of the cement needed for the foundation is 1000 cubic yards.

3. A horse ran 100 miles without stopping. What was its average speed in miles per hour?

(P) The entire journey takes from 8 p.m. one day to 4 a.m. the following day.

(Q) The horse ran 20 miles per hour for the first 50 miles.

4. Is the side GF of triangle GFD, 5 inches long?

(P)  $GD = FD$

(Q)  $GD = 2$  inches

5. A television set was originally priced at Rs. 25,000. What percent discount was given on its original price?

(P) The store has 5 of these television sets left.

(Q) If the store were to sell all of the remaining television sets, it would receive Rs. 10,000 for them.

6. What is the cost of two kilos of apples?

(1) Ten apples weight 2.1 kilos, on the average.

(2) Ten kilos of apples cost Rs. 300.

7. Can truck A pass safely underneath an elevated highway 12 feet above the ground?

(P) Truck B can pass safely underneath the highway.

(Q) Truck B is taller than Truck A.

8. How many words are listed in the 1280 page dictionary?

(P) Page 387 lists 50 words.

(Q) There are 2000 words listed under 'A'.

9. How many minutes does the clock lose a day?

(P) The clock reads 6:00 when it is really 5 : 48.

(Q) The clock is 40 seconds fast each hour.

10. A gold ring weighs 1 gram. The ring is not of pure gold but is mixed with copper. What is the value of the metal in the ring?

(P) Gold is worth Rs. 350 per gram.

(Q) 50% of the ring is due to copper.

11. Ramesh worked 42 hours this week. How much did he earn?

(P) Ramesh works 35 hours a week at Rs. 30 per hour.

(Q) Ramesh gets Rs. 40 per hour for overtime work.

12. City X has two libraries. Does the total number of books in both libraries exceed 18,000?

(P) One library has twice as many books as the other library.

(Q) One library has 9,000 books.

13. Can Usha buy the radio with Rs. 300?

(P) The radio now cost  $\frac{5}{6}$  of its former price.

(Q) After cutting the price of the radio the store's profit has decreased by  $\frac{1}{2}$ .

14. A circulation manager of a high school newspaper must deliver papers to students and teachers. Will an order of 32000 papers be sufficient?

(P) There are 15 times as many students as teachers in the school.

(Q) 50 of the students belong to lower classes, not entitled to receive the newspapers.

15. What is the width of the widest of four rivers?

(P) The most narrow river is 240 yards across.

(Q) The average narrow width is 570 yards across.

16. What is the length of the bed?

(P) The sum of 2 different yardsticks measures the length exactly.

(Q) If stretched out fully, a man 6 feet 6 inches tall would not fit into the bed.

17. How many hits must a batter get to raise his batting average to 300?

(P) X has hit 140 in 10 hits

(Q) X has hit 250 in 10 hits

18. How many students in 12th class received over 80 marks in the Math test?

(P) The sum of all the marks of the class was 2400.

(Q) The class average in the test was 80 marks.

19. An encyclopedia consists of 24 books. What is the weight of the twelfth book?

(P) The first 12 books weight 22

**SOLVED PAPER OF MANAGEMENT APTITUDE TEST**

kilos.

(Q) The last 12 books weigh 25 kilos.

20. How long must Jaikishan stay in the school daily?

(P) There are 4 minutes between two periods.

(Q) Each period lasts 40 minutes.

21. If the river is flowing downstream at a rate of 3 kilometres per hour, how long will it take Harish to row 10 kilometres upstream?

(P) He starts upstream at 10 a.m.

(Q) He rows at a rate of 5 kilometres per hour.

22. What is the maximum number of photographs that can be placed on photographic paper measuring 8 inches by 10 inches?

(P) Each photograph is 3 inches by 2 inches.

(Q) Only 2 photographs 5 inches by 6 inches fit on the last piece of photographic paper which has been printed.

23. What is the average profit per cow?

(P) The farmer had bought 6 cows for Rs 15,000.

(Q) The farmer sold the 6 cows for Rs. 24,000.

24. A radio is normally sold at a profit of 15%. At the annual sale, it is offered at a discount of 5%, then what is its cost price?

(P) The selling price after discount amounts to Rs. 150

(Q) The price of T.V. set is Rs. 15000

25. A positive number is exactly divisible by both 3 and 7. What is the number?

(P) It is greater than 20.

(Q) It is less than 25.

**Directions (26-30) :** Following questions are based on the table below:

**Foodgrain Production in India in 1995(lakh tons)**

	Rice	Wheat	Jowar	Pluses	Others
Punjab	45	103	—	27	29
U.P.	48	86	73	19	14
Bihar	59	32	67	14	31
M.P.	41	37	59	21	15
Mahar.	37	22	41	13	11
A.P.	68	15	12	—	18
Tamil N.	57	8	7	12	10
Others	38	26	31	22	45

26. Which state ranks first in total foodgrains production in India?

(1) Punjab      (2) U.P.

(3) Bihar      (4) M.P.

27. What was the proportion of rice production to wheat production in 1995?

- (1) 1:1      (2) 0.8 : 1  
 (3) 2 : 1      (4) 1.2 : 1

28. Jowar was the most important foodgrain in which of the following states?

- (1) U.P., Bihar, M.P.  
 (2) U.P. Only  
 (3) Bihar, M.P.  
 (4) Bihar, U.P., Maharashtra

29. Punjab alone accounted for approximately what percentage of wheat production in India 1995?

- (1) 50%      (2) 73%  
 (3) 30%      (4) 41%

30. If the average per hectare yield of rice in India was 30 tons, then the area under rice cultivation during 1995 was

- (1) 11 lakh hectares  
 (2) 1.5 hectares  
 (3) 40 lakh hectares  
 (4) 10000 hectares

**Directions (31-35) :** The table shows the major media availability in various states belonging to the North zone. Study the table and answer the questions.

**Major Media availability in various states NORTH ZONE**

State	Circulation ('000)	No. of radio sets licenced ('000)	No. of T.V. sets licenced ('000)	No. of cinema Theatres	
				Permanent	Moving
Delhi	1410	1112	431	73	—
Rajasthan	303	190	321	173	69
H.P.	10	10	5	28	2
J & K	43	95	28	32	—
U.P.	798	608	185	678	100
Punjab	379	561	200	161	5
Haryana	18	120	32	107	14
Total	2961	2696	1002	1252	190

31. Which are the states in which the number of radio licensed sets is higher than circulation?

- (1) Delhi, J & K, Punjab  
 (2) Punjab, J & K, H.P.  
 (3) Punjab, Haryana, J & K  
 (4) Punjab, U.P., Haryana

32. If the number of radio sets in Delhi increased by 10% and the number of T.V. sets in Punjab increased by 25%, then the total number of T.V. sets as a percentage of the total number of radio sets in the north zone would be

- (1) 40%      (2) 34%  
 (3) 30%      (4) 38%

33. The media reach is described as follows:

Each circulation is read by 5 people.

Each radio is listened to by 4 people.

Each TV is seen by 6 people.

There is no overlap, i.e. a person who sees T.V. doesn't listen to the radio or read circulation and so on. Exclude the cinema medium in this case. What

is the reach in Himachal Pradesh as a percentage of the reach in Haryana?

- (1) 16%      (2) 12%  
 (3) 13%      (4) 18%

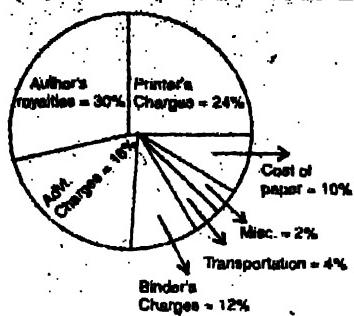
34. Based on the details given in Q. 33, if a product is advertised twice in the circulation, thrice on the radio, and once on the TV every week, then what will be the exposure in J & K per week (in '000) exposure = Number of times people hear, read or see the product advertisement.

- (1) 1,400      (2) 1,450  
 (3) 1,740      (4) 1,620

35. If the population of J & K is 21 lakh then what will be the approximate figure for circulation of the number of radio sets and the number of T.V. sets as a percentage of the population.

- (1) 18, 47, 12      (2) 21, 46, 11  
 (3) 23, 47, 12      (4) 21, 47, 14

**Directions (36-40) :** The following questions Nos. are based on circle graph below, which shows the expenditure incurred, in bringing out a book, by a publisher?



36. If the author's royalties amount to Rs. 30,000, the binder's charges amount to Rs.

- (1) 6,000      (2) 10,500  
 (3) 12,000      (4) 15,000

37. What should be the central angle of the sector for transportation charges?

- (1) 4 degree      (2) 8.4 degree  
 (3) 12.4 degree      (4) 14.4 degree

38. If the advertisement charges amount to Rs. 18,000, the total expenditure incurred in bringing out the book is Rs:

- (1) 60,300      (2) 63,000  
 (3) 9,000      (4) 1,00,000

39. The miscellaneous expenditure amounts to Rs. 2000 and totally 12500 copies of the book are published. What is the cost per copy at which the books must be priced, if the publisher desires a profit of 5%?

- (1) Rs. 5      (2) Rs. 7.50  
 (3) Rs. 8      (4) Rs. 8.40

40. If the binder's charges amount to Rs. 6,000, then the expenses on the cost of paper would have been.

- (1) Rs. 5,000      (2) Rs. 7,200  
 (3) Rs. 10,000      (4) Rs. 9,600

#### SHORT ANSWERS

1. (2)   2. (4)   3. (4)   4. (4)  
 5. (4)   6. (3)   7. (3)   8. (4)  
 9. (2)   10. (4)   11. (3)   12. (3)  
 13. (4)   14. (4)   15. (4)   16. (4)  
 17. (4)   18. (4)   19. (3)   20. (4)  
 21. (2)   22. (1)   23. (3)   24. (1)  
 25. (2)   26. (2)   27. (4)   28. (4)  
 29. (3)   30. (1)   31. (3)   32. (2)  
 33. (1)   34. (3)   35. (4)   36. (3)  
 37. (4)   38. (4)   39. (4)   40. (1)

#### ANSWERS WITH EXPLANATION

3.(4) Here, it is said that the horse ran 100 miles without stopping. From this statement we cannot conclude that the horse travelled 100 miles in its journey. So, distance travelled by the horse is not clear. How can we find out the average speed? Though the time taken in the journey is given in (P) or speed in initial 50 miles is given in (Q) but due to the absence of total distance covered our answer is bound to be (4).

8.(4) Page 387 lists 50 words. That doesn't mean that every page will contain 50 words in average.

Again, 2000 words are listed under 'A'. From this statement we cannot infer that 2000 words will be listed under every letter.

Therefore from either of these two statements or from both of these two statements we cannot have the required answer. Hence the answer is (4).

#### 26.(2) Total Grain Production

Punjab	- 204
U.P.	- 240
Bihar	- 203
M.P.	- 173
Maharashtra	- 124
A.P.	- 113
Tamil Nadu	- 94
Others	- 164

From the table, U.P. ranks first.

$$27.(4) 393 : 331 = 1.2 : 1$$

28.(4) By visual inspection : Bihar, M.P., Maharashtra

$$29.(3) \frac{103}{331} \approx 30\%$$

$$30.(1) \frac{331}{30} \approx 1.11 \text{ lakh hectares}$$

31.(3) Punjab, Haryana, J & K

32. (2) Increase in the number of radios in Delhi

$$= 0.1 \times 1112 = 111$$

Increase in the number T.V. sets in Punjab

$$= 0.25 \times 200 = 50$$

$$\left( \frac{1002 + 50}{2696 + 111} \right) = \frac{1052}{2807} \times 100 = 34\%$$

$$33.(1) \text{Reach in H.P.} = \\ (5 \times 10) + (10 + 4) + (6 \times 5)$$

$$= 50 + 40 + 30 = 120$$

Reach in Haryana

$$= (5 \times 18) + (120 \times 4) + (32 \times 6) \\ = 90 + 480 + 192 = 762$$

$$= \frac{120}{762} \times 100 = 15.7 \approx 16\%$$

$$34.(3) (43 \times 3 \times 2) + (95 \times 4 \times 3) + \\ (28 \times 6 \times 1) = 1740$$

$$35.(4) \frac{43000}{200000} \times 100 = 21\%$$

$$\frac{95000}{200000} \times 100 = 47\%$$

$$\frac{28000}{200000} \times 100 = 14\%$$

$$36.(3) \text{According to question,} \\ 30\% \Rightarrow 30,000$$

$$\therefore 12\% \Rightarrow \frac{30000}{30} \times 12$$

$$= 12000$$

$$37.(4) 100\% = 360^\circ$$

$$\therefore 4\% = \frac{360}{100} \times 4$$

$$= 14.4^\circ$$

$$38.(4) \text{According to question,} \\ 18\% \Rightarrow 18000$$

$$\therefore 100\% = \frac{18000}{18} \times 100$$

$$= 100000$$

$$39.(4) \text{According to question,} \\ 2\% \Rightarrow 2000$$

$$\therefore 100\% = \frac{2000}{2} \times 100$$

$$= 100000$$

$$\therefore \text{After } 5\% \text{ profit total price} \\ = 1.05 \times 100000$$

$$= 105000$$

$$\therefore \text{Required answer} = \frac{105000}{12500}$$

$$= \text{Rs. 8.40}$$

$$40.(1) \text{According to question,} \\ 12\% \Rightarrow 6000$$

$$\therefore 10\% \Rightarrow \frac{6000}{12} \times 10$$

$$= \text{Rs. 5000}$$

**BCA (DU) EXAM.**

Held on 29.05.99

**GENERAL AWARENESS**

Based on Memory

1. The heart transplant surgery was first done by-

- (1) Dr. A.S. Hyman
  - (2) Dr. Paul Muller
  - (3) Dr. William Einthoven
  - (4) Dr. Christian Bernard
2. Kosova is a State of
- (1) Albania
  - (2) Czech Republic
  - (3) Yugoslavia
  - (4) Bosnia-Herzegovina

3. The language that the largest number of people speak in the world, as their mother tongue, is

- (1) Arabic
- (2) Chinese
- (3) English
- (4) Hindi

4. The agricultural scientist who developed "miracle wheat" that brought about Green Revolution in India was-

- (1) Dr. Howard Forey
- (2) Dr. Norman Borlaug
- (3) Dr. Elwin Land
- (4) Dr. M.S. Swaminathan

5. The study of inscriptions is called-

- (1) epigraphy
- (2) etymology
- (3) iconography
- (4) ethnology

6. Which one of the following man-made structures is visible from the moon?

- (1) Qutub Minar
- (2) Pyramids
- (3) Great Wall of China
- (4) None of the above

7. In which year did Yuri Gagarin take the first travel in space?

- (1) 1951
- (2) 1956
- (3) 1961
- (4) 1965

8. INSAT-2B was launched in the year

- (1) 1973
- (2) 1983
- (3) 1993
- (4) 1996

9. The first successful development launch of PSLV-D2 took place in the year-

- (1) 1964
- (2) 1974
- (3) 1984
- (4) 1994

10. What is the name of the research station established by the Indian Government for conducting research at Antarctic?

- (1) Dakshin Gangotri
- (2) Yamunotry
- (3) Uttai Gangotry
- (4) None of the above

11. Where in India Centre for DNA Finger Printing and Diagnostics is located?

- (1) Delhi
- (2) Hyderabad
- (3) Pune
- (4) Bangalore

12. The Money Bill can originate

- (1) only in Lok Sabha

- (2) only in Rajya Sabha
- (3) in either House of Parliament
- (4) only in the joint sitting of the two Houses of the Parliament

13. Which index is used in India to measure the rate of inflation?

- (1) Wholesale price index
- (2) Consumer price index
- (3) Consumer price index for industrial worker
- (4) None of the above

14. Who is the author of 'Suitable Boy'?

- (1) Kamla Markandey
- (2) Khushwant Singh
- (3) Vikram Seth
- (4) Arundhati Roy

15. Who has been awarded Bharatiya Gyan Peeth Award for 1998?

- (1) Girish Karnad
- (2) Amrita Pritam
- (3) Harbhajan Singh
- (4) None of the above

16. Which one of the following countries is the major destination of Indian export?

- (1) Australia
- (2) Japan
- (3) U.K.
- (4) U.S.A.

17. What is the percentage of contribution of Indirect Taxes to the revenues of the Central Government according to the latest budget?

- (1) 68.8
- (2) 63.9
- (3) 62.66
- (4) 61.76

18. The "White Revolution" was brought about in India by

- (1) Dr. S.N. Bose
- (2) Dr. P.C. Mahalanobis
- (3) Dr. Vergese Kurien
- (4) Dr. M.S. Swaminathan

19. The first atomic research reactor that became operational in India in 1950 was called-

- (1) Apsara
- (2) Zerlina
- (3) Purnima
- (4) Cirus

20. Who invented Chloroform?

- (1) Gallio
- (2) James Simpson
- (3) Rene Laennec
- (4) None of the above

21. Macedonia was till recently a State of-

- (1) Albania
- (2) Croatia
- (3) Greece
- (4) Yugoslavia

22. The second largest river in the world is

- (1) Amazon

- (2) Mississippi-Missouri
- (3) The Niles
- (4) Yangtzejiang

23. The abbreviation ISRO stands for

- (1) Indian Scientific Research Organization
- (2) International Scientific Research Organization

(3) Indian Software Research Organization

- (4) Indian Space Research Organization

24. The expression INSAT stands for

- (1) Institute of National Science and Technology
- (2) Indian National Society of Applied Technology

(3) Indian National Satellite

- (4) Indian National Society for Arts and Technology

25. The noted Indian orthopedic surgeon who invented "the Jaipur foot" was-

- (1) Geet Sethi
- (2) P.K. Sethi
- (3) P.K. Seth
- (4) S.K. Sethi

26. The currency of Indonesia is called-

- (1) Baht
- (2) Dinar
- (3) Rial
- (4) Rupiah

27. The Ninth Five-Year Programme is supposed to have started in-

- (1) March 1997
- (2) June 1997
- (3) March 1998
- (4) April 1998

28. The total number of Parliamentary seats that Lok Sabha has is

- (1) 539
- (2) 541
- (3) 543
- (4) 545

29. To measure the purity of milk we use

- (1) Barometer
- (2) Micrometer
- (3) Lactometer
- (4) Manometer

30. The Khalsa Panth was created by Guru Gobind Singh in the year-

- (1) 1605
- (2) 1699
- (3) 1799
- (4) 1899

**SHORT ANSWERS**

1. (4)
2. (3)
3. (2)
4. (2)

5. (1)
6. (3)
7. (3)
8. (2)

9. (4)
10. (1)
11. (2)
12. (1)

13. (1)
14. (3)
15. (1)
16. (4)

17. (3)
18. (3)
19. (1)
20. (2)

21. (4)
22. (1)
23. (4)
24. (3)

25. (2)
26. (1)
27. (1)
28. (4)

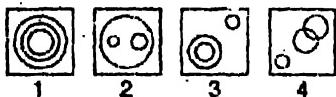
29. (3)
30. (2)

# SSC COMBINED MATRIC LEVEL PRELIM EXAM.

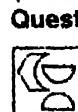
Held on 24.10.1999

**EVENING SHIFT**
**PART-I  
GENERAL INTELLIGENCE**

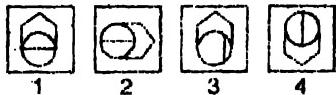
1. Choose from the given four diagrams 1, 2, 3, 4, the one that best illustrates the relationship among three classes.  
 Minutes, Days, Months.



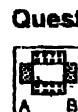
2. Among the four answer figures which one can be formed from the cut out pieces given below ?



Answer Figures :



3. Which of the answer figures is exactly the mirror image of the given figure when the mirror is held at AB ?



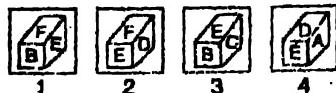
Answer Figures :



4. Which of the four cubes given below can be created by folding the given question figure ?



Answer Figures :

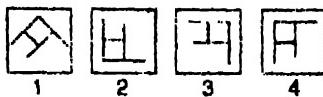


5. The problem figure given below may be turned in any direction, but not be picked up and turned over. Find out the correct figure which could be

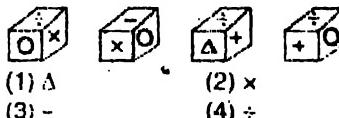
formed by rotating the problem figure.  
 Problem Figure :



Answer Figures :



6. Four positions of a cube are shown below. Which symbol is opposite the having '+' ?



7. In the following problem a square transparent sheet with a pattern is given. Figure out from amongst the four alternative as to how the pattern would appear when the transparent sheet is folded at the middle line shown.

Problem Figure :



Answer Figures :

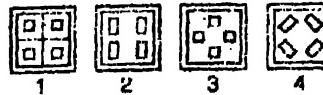


- Directions : In question nos. 8 to 10 a piece of paper is folded and punched as shown below. From the given responses indicate how it will appear when opened.

8. Question Figures :



Answer Figures :



9. Question Figures :



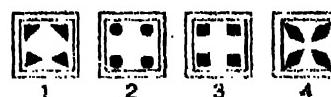
Answer Figures :



10. Question Figures :



Answer Figures :



Directions : In question nos. 11 to 13 which one of the answer figures shall complete the given question figure ?

11. Question Figure :



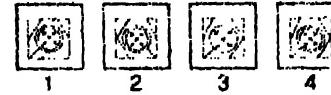
Answer Figures :



12. Question Figure :



Answer Figures :



13. Question Figure :



Answer Figures :

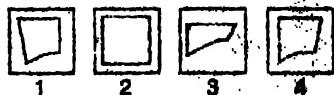


14. Fig. 1, 2 and 3 is combined to a regular form. Select the correct figure that will be framed from the Answer Figures.

Question Figure :



**Answer Figures :**



**Directions :** In question nos. 15 to 30, select the related letters/word/number/figure from the given alternatives.

15. Motor Car : Garage :: Aeroplane : ?

- (1) Air Field (2) Hangar  
(3) Air Port (4) Runway

16. Bird : Fish :: Aeroplane : ?

- (1) Air (2) Car  
(3) Water (4) Ship

17. Thread : Cloth :: Wire : ?

- (1) Rope (2) Mesh  
(3) Sieve (4) Telegraph

18. Spacious : Capacity :: Scanty : ?

- (1) Possibility (2) Density  
(3) Scarcity (4) Fancy

19. Thermometer : Temperature ::

Higrometer : ?

- (1) Pressure (2) Density  
(3) Stress (4) Humidity

20. ACEG : BDFH :: CEGI : ?

- (1) DFHJ (2) EGIK  
(3) EGIH (4) DHIK

21. NUMBER : UNBMRE ::

GHOSTS : ?

- (1) HGOSTS (2) HOGSTS  
(3) HGSOST (4) HGSOTS

22. 1234 : 4132 :: 5678 : ?

- (1) 8765 (2) 8576  
(3) 8675 (4) 8567

23. 763 : 856 :: 637 : ?

- (1) 866 (2) 730  
(3) 737 (4) 637

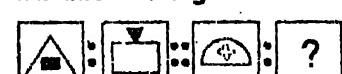
24. 36 : 324 :: 49 : ?

- (1) 441 (2) 411  
(3) 4144 (4) 444

25. 49 : 81 :: 64 : ?

- (1) 36 (2) 100  
(3) 121 (4) 144

26. Question Figures :



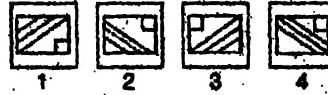
**Answer Figures :**



27. Question Figures :



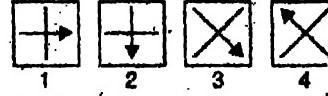
**Answer Figures :**



28. Question Figures :



**Answer Figures :**



29. Question Figures :



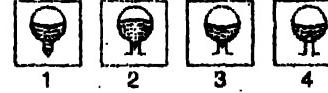
**Answer Figures :**



30. Question Figures :



**Answer Figures :**



**Directions :** In question nos. 31 to 46, select the one which is different from the other three responses.

31. (1) Sword (2) Dagger

- (3) Rifle (4) Knife

32. (1) Violin (2) Veena

- (3) Sitar (4) Sexaphone

33. (1) Kerala

(2) Karnataka

(3) Andhra Pradesh

(4) Jammu

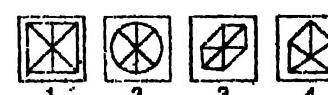
34. (1) Plant (2) Root

- (3) Stem (4) Leaf

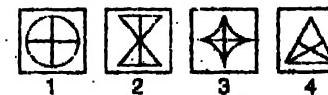
35. (1) Prison (2) Court

- (3) Handcuffs (4) Uniform

36.



37.



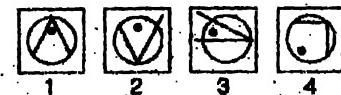
38.



39.



40.



41. (1) N (2) Z  
(3) H (4) T

42. (1) Nile (2) Lien

(3) Line (4) Lean

43. (1) ETGV (2) QHSJ

(3) ISHR (4) CVEX

44. (1) 22 (2) 36

(3) 66 (4) 44

45. (1) 52 - 61 (2) 43 - 54

(3) 72 - 83 (4) 18 - 29

46. (1) 18, 36, 38 (2) 14, 28, 56

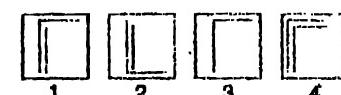
(3) 21, 42, 44 (4) 16, 32, 34

**Directions :** In question nos. 47 to 51, find the missing figure of the series from the given answer figures.

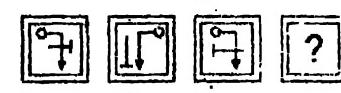
47. Question Figures :



**Answer Figures :**



48. Question Figures :



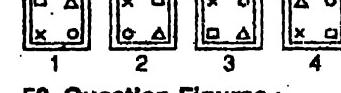
**Answer Figures :**



49. Question Figures :



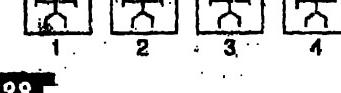
**Answer Figures :**



50. Question Figures :



**Answer Figures :**





- (1) 19. (2) 29  
 (3) 78. (4) 48



80. (1) 8. (2) 7.  
 (3) 9. (4) 10

81. 6 15 20

8 4 5

3 5 20

51 65 ?

- (1) 56. (2) 120

- (3) 51. (4) 12

82. 9 11 13

3 4 7

3 4 ?

81 176 455

- (1) 3. (2) 5

- (3) 7. (4) 9

**Directions :** In the following question you have to identify the correct response from the given premises stated according to following symbols.

'A' stands for "equal to".

'B' stands for "less than".

'C' stands for "greater than".

'D' stands for "not greater than".

'E' stands for "not equal to".

'F' stands for "not less than".

Premises : (7X B 3Y) and (6Y D 2Z)

- (1) 7X C 2Z (2) 7X B 2Z

- (3) 7X D 2Z (4) 7X A 2Z

84. Which does not follow the rule?

- (1) LOR (2) BEH

- (3) QRS (4) KNQ

**85. Directions :** In the series of letters given below adjacent letters are skipped in the order, three letters and four letters alternately. Which of the following series observes the rule given above ?

- (1) SWBFKPT (2) NRWBFKO  
 (3) HPUYDI (4) EINRWAF

86. Some equations are solved on the basis of a certain system. On the same basis find out the correct answer from amongst the four alternatives for the unsolved equation in the given question :

$$14 \times 28 \times 15 = 28 \quad 14 \quad 15$$

$$21 \times 15 \times 12 = ?$$

$$25 \times 30 \times 11 = 30 \quad 25 \quad 11$$

- (1) 15 21 12

- (2) 14 15 28

- (3) 25 30 11

- (4) 28 15 11

87. In the following question number of letters skipped in between adjacent letters in the series is increased by one. Which of the following series observe the rule ?

- (1) ADHMSZH

- (2) BCDFGEH

- (3) MNOQPRS

- (4) JHKLNOP

**Directions :** In question nos. 88 to 91, two statements are given followed by two conclusions I and II. You have to consider the two statements to be true, even if they seem to be at variance from commonly known facts. You are to decide which of the given conclusions can definitely be drawn from the given statements. Indicate your answer.

**88. Statements :** All the bags sold in that shop are high priced.

Some of your bags are sold in that shop.

**Conclusions :** I. Some of your bags are high-priced.

II. That shop sells some of your high priced bags.

- (1) Only I follows

- (2) Neither I nor II follows

- (3) Only II follows

- (4) Both I and II follow

**89. Statements :**

All soldiers are men.

Some citizens are soldiers.

**Conclusions :**

- I. Some citizens are men.

- II. All soldiers are citizens.

- (1) Only I follows

- (2) Neither I nor II follows

- (3) Only II follows

- (4) Both I and II follow

**90. Statements :**

All Americans are English speaking.

No Eskimos are English speaking.

**Conclusions :**

- I. No Eskimos are Americans.

II. No English-speakers are Eskimos.

- (1) Only I follows

- (2) Neither I nor II follows

- (3) Only II follows

- (4) Both I and II follow

**91. Statements :**

All children are playful.

Some animals are playful.

**Conclusions :**

- I. Some animals are children.

- II. Some children are animals.

- (1) Only I follows

- (2) Neither I nor II follows

- (3) Only II follows

- (4) Both I and II follow

**Directions :** In question nos. 92 to 96 from the given answer figures, select the one in which the question figure is hidden/embedded.

**92. Question Figure :**



**Answer Figures :**



1



2



3



4

**93. Question Figure :**



**Answer Figures :**



1



2



3



4

**94. Question Figure :**



**Answer Figures :**



1



2



3



4

**95. Question Figure :**



**Answer Figures :**



1



2



3



4

**96. Question Figure :**



**Answer Figures :**



1



2



3



4



important Rabi crops are wheat, gram, barley and linseed

117. Raniganj Coal Mine is situated in

- (1) Bihar
- (2) Madhya Pradesh
- (3) West Bengal
- (4) Maharashtra

118. Bosnia-Herzegovina formed the parts of

- (1) Czechoslovakia
- (2) Yugoslavia
- (3) Bulgaria
- (4) Azerbaijan

119. Major producer of sugar is

- (1) Australia
- (2) Cuba
- (3) India
- (4) Mauritius

120. In the north-east of the Deccan plateau is the—

- (1) Chhota Nagpur plateau
- (2) Malwa plateau
- (3) Deccan plateau
- (4) Vindhyan Range

121. To which one of the following States the Santhal tribe does not mainly belong?

- (1) Bihar
- (2) Rajasthan
- (3) West Bengal
- (4) Madhya Pradesh

122. The latitude of a place is expressed by its angular distance in relation to—

- (1) Equator
- (2) South Pole
- (3) Axis of the Earth
- (4) North Pole

123. The southern tip of India is

- (1) Cape Comorin
- (2) Point Calimere
- (3) Indira Point in Nicobar Islands
- (4) Kovalam in Trivandrum

124. Which one of the following States does not use thermal electricity?

- (1) Andhra Pradesh
- (2) Tamil Nadu
- (3) Arunachal Pradesh
- (4) Madhya Pradesh

125. Which one of the following districts of MP has a border with another State?

- (1) Rewa
- (2) Raisen
- (3) Hoshangabad
- (4) Shahdol

126. Which one of the following is a coastal district of Tamil Nadu?

- (1) Periyar
- (2) Kanyakumari
- (3) Madurai
- (4) Tiruchirappalli

127. The total number of bones in man are—

- (1) 212
- (2) 206
- (3) 202
- (4) 200

128. The number of heart beats on an average in an adult human is in the range of

- (1) 60-65
- (2) 66-70
- (3) 71-80
- (4) 85-90

129. The end product of the digestion of starch in the alimentary canal is—

- (1) glucose
- (2) galactose
- (3) maltose
- (4) Isomaltose

130. Number of Eyes in an Earthworm is—

- (1) one
- (2) two
- (3) many
- (4) no eyes

131. Acupuncture is—

- (1) a disease of heart
- (2) servicing of tubes and tyres
- (3) a treatment method with needles
- (4) a crop culture

132. Some viruses have RNA but no DNA. This would indicate that—

- (1) these viruses cannot replicate
- (2) these viruses have no heritable information
- (3) RNA transmits the hereditary information in these viruses
- (4) their nucleic acids can be crystallised

133. The presence of air cavities is an adaptation of

- (1) Desert plants
- (2) Trees
- (3) Water plants
- (4) Mesophytes

134. Amoebiasis is causing

- (1) Dysentery
- (2) Fever
- (3) Severe cold
- (4) Headache and cold

135. The nitrogen in the ecosystem is circulated by—

- (1) Earthworms
- (2) Bacteria
- (3) Fungi
- (4) Protozoa

136. Air coolers are more suitable for

- (1) hot and humid climate
- (2) hot and dry climate
- (3) cool and humid climate
- (4) cool and dry climate

137. Acid secretion is characteristic of

- (1) Buccal cavity
- (2) Stomach
- (3) Small intestine
- (4) Large intestine

138. Which of the following is not a part of the Darwin's theory of evolution?

- (1) Natural selection
- (2) Struggle for existence
- (3) Survival of the fittest
- (4) Inheritance of acquired characters

139. The brain of a computer is

- (1) C.P.U.
- (2) C.D.
- (3) Floppy disc
- (4) Megabyte

140. Liver-oil of fish is rich in

- (1) Vitamin A
- (2) Vitamin C
- (3) Vitamin D
- (4) Vitamin E

141. Which of the following does not provide any energy?

- (1) Fats
- (2) Proteins
- (3) Vitamins
- (4) Carbohydrates

142. Dialysis is used to perform the function of—

- (1) Lungs
- (2) Heart
- (3) Liver
- (4) Kidneys

143. Which one of the following is not a fertilizer?

- (1) Ammonium sulphate
- (2) Calcium sulphate
- (3) Calcium ammonium nitrate
- (4) Potassium nitrate

- 144.** Slag is a name given for  
 (1) molten iron  
 (2) molten sand  
 (3) molten alumina  
 (4) molten calcium silicate
- 145.** Pesticides are used to destroy  
 (1) micro-organisms  
 (2) poisonous substances in soil  
 (3) poisonous plants  
 (4) insects
- 146.** Which one of the following statements is not correct?  
 Vulcanisation of rubber makes it  
 (1) Soft and flexible  
 (2) strong and hard  
 (3) chemical resistant  
 (4) withstand higher temperatures
- 147.** Stainless steel is usually made by alloying the steel with  
 (1) copper and nickel  
 (2) copper and chromium  
 (3) chromium and nickel  
 (4) manganese and copper
- 148.** Which one of the following organic compound is used to remove stains of iron compounds?  
 (1) Oxalic acid  
 (2) Benzoic acid  
 (3) Phthalic acid  
 (4) Cinnamic acid
- 149.** Which one of the following is used as a sowing agent in the preparation of soft drinks?  
 (1) Phosphoric acid  
 (2) Phosphorus acid  
 (3) Salicylic acid  
 (4) Boric acid
- 150.** The coating of a thin layer of zinc on steel or iron objects is known as  
 (1) Hot dipping  
 (2) Tinning  
 (3) Galvanising  
 (4) Electroplating
- 151.** Which one of the following gases has the highest calorific value?  
 (1) Natural gas  
 (2) Water gas  
 (3) Cola gas  
 (4) Indane gas
- 152.** A transformer  
 (1) converts DC to AC  
 (2) is used to decrease or increase AC voltage.
- (3) converts AC voltage to D.C. voltage  
 (4) converts electrical energy into mechanical energy
- 153.** When hot-water is sprinkled on a hotter glass tumbler, it breaks because  
 (1) glass suddenly expands  
 (2) glass suddenly contracts  
 (3) water evaporates  
 (4) glass reacts chemically with water
- 154.** Electricity is transmitted over long distances  
 (1) It is fast  
 (2) there is less wastage of energy  
 (3) it is safer  
 (4) it is cheaper
- 155.** The material used in the fabrication of a transistor is  
 (1) Aluminium  
 (2) Copper  
 (3) Silicon  
 (4) Silver
- 156.** If there is a circular hole in a metal plate, what happens to the radius of the hole when the plate is heated?  
 (1) Increases  
 (2) Decreases  
 (3) Unchanged  
 (4) Depends upon the metal
- 157.** The velocity of sound in air  
 (1) decreases with increase of temperature  
 (2) increases with decrease of temperature  
 (3) does not depend on temperature  
 (4) decreases with decrease of temperature
- 158.** Electric current in a metal wire is due to the flow of—  
 (1) Electrons  
 (2) Protons  
 (3) Ions  
 (4) Holes
- 159.** The device which converts sound energy into electrical energy is called  
 (1) Amplifier  
 (2) Speaker  
 (3) Microphone  
 (4) Transmitter
- 160.** The light rays used for eliminating bacteria  
 (1) X-rays  
 (2) infrared rays  
 (3) microwave radiation  
 (4) ultra-violet radiation
- 161.** The state which produces the largest quantity of wheat is  
 (1) Haryana  
 (2) Rajasthan  
 (3) U.P.  
 (4) Punjab
- 162.** What is dual pricing?  
 (1) Wholesale price and Retail pricing  
 (2) Pricing by agents and Pricing by retailers  
 (3) Price fixed by Government and Price in open market  
 (4) Daily prices and Weekly prices
- 163.** The largest share in our imports is from  
 (1) North America  
 (2) European Community  
 (3) OPEC (Organisation of Petroleum Exporting Countries)  
 (4) African and Asian Developing Countries
- 164.** Which of the following industries most closely approximates the perfectly competitive model?  
 (1) Automobile  
 (2) Cigarette  
 (3) Newspaper  
 (4) Wheat farming
- 165.** Where did a major earthquake take place in India in 1999?  
 (1) Latur  
 (2) Jabalpur  
 (3) Charnoli  
 (4) Uttar Kashi
- 166.** Who is the author of the book "Wings of Fire"?  
 (1) Vikram Seth  
 (2) A.P.J. Abdul Kalam  
 (3) Arundhati Roy  
 (4) M.J. Akbar
- 167.** What has been the estimated food production for the year 1998-99?  
 (1) 120 million tonnes  
 (2) 201 million tonnes  
 (3) 300 million tonnes  
 (4) 150 million tonnes

**168.** Who amongst the following won a gold medal for India at the last Asian Games athletics?

- (1) Jyotirmoyee Sikdar
- (2) P.T. Usha
- (3) Shiny Wilson
- (4) Aswani Nachappa

**169.** Who is the Prime Minister of Isreal?

- (1) Benjamin Nityanayahu
- (2) Yitzak Rabin
- (3) General Ehud Barak
- (4) Shimon Peres

**170.** Which of the following is India's development IRBM?

- (1) Prithvi
- (2) Aakaash
- (3) Agni II
- (4) Dhanush

**171.** The Gondwana Coal fields are found in

- (1) Madhya Pradesh
- (2) West Bengal
- (3) Assam
- (4) Jammu & Kashmir

**172.** Which of the following countries wanted a Union with Russia and Belarus?

- (1) Czech
- (2) Slovakia
- (3) Yugoslavia
- (4) Romania

**173.** Which country from the following is a permanent member of the U.N. Security-Council?

- (1) Switzerland
- (2) Peoples Republic of China
- (3) Japan
- (4) Ukraine

**174.** Which is the venue selected for Olympics 2004?

- (1) London
- (2) Stockholm
- (3) Athens
- (4) Sydney

**175.** What is approximately the percentage of forest cover in India?

- (1) 10%
- (2) 8.5%
- (3) 25%
- (4) 19.5%

**176.** Who amongst the following is the Prime Minister of Fiji?

- (1) Ratu Sir Kamisere Mara

- (2) Sitiveni Rabuka
- (3) Mahendra Chowdhry
- (4) Jupeni Baba

**177.** Who popularised "transcendental meditation" most in the recent years?

- (1) Dharendra Brahmachari
- (2) Chandraswami
- (3) Maharishi Mahesh Yogi
- (4) Swami Chinmayananda

**178.** Which of the following international tennis tournaments is held on grass court?

- (1) U.S. Open
- (2) French Open
- (3) Wimbledon
- (4) Australian Open

**179.** According to the U.N. Convention on the rights of children which of the following is not a right?

- (1) Safe drinking water
- (2) Adequate standard of living
- (3) Education
- (4) Marriage

**180.** Who amongst the following is associated with "Microsoft"?

- (1) Andrew Grove
- (2) Bill Gates
- (3) Ted Turner
- (4) Rupert Murdoch

**181.** The Indian National Army (Azad Hind Fauj) fought in the Second World War against-

- (1) Germany
- (2) Japan
- (3) Italy
- (4) Great Britain

**182.** The Supreme Court is empowered to settle election disputes of President and Vice-President. This is its

- (1) Original Jurisdiction
- (2) Appellate Jurisdiction
- (3) Advisory Jurisdiction
- (4) Miscellaneous Jurisdiction

**183.** The Head Quarters of the International Monetary Fund is located at

- (1) Paris
- (2) Vienna
- (3) Washington D.C.
- (4) Geneva

**184.** The provisional President of the Constituent Assembly was

- (1) Sachchidananda Sinha
- (2) Dr. Rajendra Prasad
- (3) Dr. B.R. Ambedkar
- (4) Pt. Jawaharlal Nehru

**185.** The Chairman of the Finance Commission is appointed by

- (1) The President
- (2) The Prime Minister
- (3) The Cabinet
- (4) The Parliament

**186.** The Council of Ministers in a State is collectively responsible to

- (1) the Governor
- (2) the Chief Minister
- (3) the President of India
- (4) the Legislative Assembly

**187.** Articles 74 and 75 of Indian Constitution deal with matters of

- (1) the Council of Ministers
- (2) the Speaker of Lok Sabha
- (3) the President of India
- (4) the Cabinet Ministers

**188.** The Chairman of the Drafting Committee of the Indian Constitution was

- (1) Pt. Jawaharlal Nehru
- (2) Dr. Rajendra Prasad
- (3) Mahatma Gandhi
- (4) Dr. B.R. Ambedkar

**189.** Fourth Estate is referred to

- (1) Public Opinion
- (2) Chamber of Commerce
- (3) The Newspaper
- (4) Political Parties

**190.** Rajya Sabha being a permanent house

- (1) one-third of its members retire every two years
- (2) one-half of its members retire every three years
- (3) one-fifth of its members retire every year
- (4) one-sixth of its members retire every year

**191.** In which State does the Governor nominate women to the Assembly?

- (1) Jammu & Kashmir
- (2) Sikkim
- (3) Manipur
- (4) Nagaland

**192.** A proceeding under Article 226 in case of detention of a person is a

(1) Civil proceeding

(2) Criminal proceeding

(3) Judicial proceeding

(4) Statutory proceeding

193. Fundamental Rights granted to the Indian citizens

(1) cannot be suspended

(2) can be suspended

(3) can never be suspended under any circumstance

(4) None of the above is correct

194. The Joint Session of both the Houses of Parliament is summoned by

(1) Speaker of the Lok Sabha

(2) President

(3) Prime Minister

(4) Chairman of Rajya Sabha

195. In a federal Government the states enjoy

(1) original powers

(2) powers delegated by the Centre

(3) powers given by the Constitution

(4) powers given by the people

196. The first Bhakti Movement was organised by

(1) Nanak

(2) Meera

(3) Ramdas

(4) Ramanujacharya

197. Indian Universities Act, 1904 was passed during the governorship of

(1) Lord Lytton

(2) Lord Curzon

(3) Lord Ripon

(4) Lord Hardinge-I

198. The hero of the Kakori Dacoity case was

(1) Ramprasad Bismil

(2) Bhagat Singh

(3) Batukeshwar Datta

(4) Barkatulla

199. The person responsible for introducing the conception of Dyarchy in the 1919 Act was

(1) Montague

(2) Tez Bahadur Sapru

(3) Lionel Curtis

(4) Chelmsford

200. The Hoyasala's capital was

(1) Warrangal

(2) Devagiri

(3) Dwarasamundra

(4) Krishnagiri

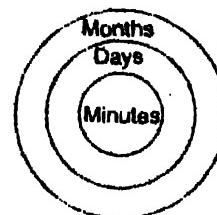
### SHORT ANSWERS

1. (1) 2. (2) 3. (3) 4. (2)
5. (2) 6. (2) 7. (3) 8. (4)
9. (1) 10. (4) 11. (4) 12. (4)
13. (2) 14. (2) 15. (2) 16. (4)
17. (2) 18. (3) 19. (4) 20. (1)
21. (3) 22. (2) 23. (2) 24. (3)
25. (2) 26. (4) 27. (4) 28. (3)
29. (3) 30. (9) 31. (3) 32. (4)
33. (4) 34. (1) 35. (4) 36. (4)
37. (4) 38. (3) 39. (1) 40. (4)
41. (4) 42. (4) 43. (3) 44. (2)
45. (1) 46. (2) 47. (2) 48. (1)
49. (4) 50. (1) 51. (4) 52. (3)
53. (3) 54. (3) 55. (2) 56. (1)
57. (3) 58. (2) 59. (2) 60. (2)
61. (3) 62. (3) 63. (3) 64. (3)
65. (2) 66. (4) 67. (4) 68. (4)
69. (3) 70. (2) 71. (2) 72. (1)
73. (2) 74. (2) 75. (4) 76. (1)
77. (3) 78. (3) 79. (3) 80. (3)
81. (2) 82. (2) 83. (2) 84. (3)
85. (4) 86. (1) 87. (1) 88. (4)
89. (1) 90. (4) 91. (2) 92. (1)
93. (3) 94. (2) 95. (1) 96. (1)
97. (4) 98. (2) 99. (1) 100. (2)
101. (3) 102. (1) 103. (1) 104. (3)
105. (3) 106. (2) 107. (1) 108. (3)
109. (2) 110. (1) 111. (3) 112. (4)
113. (2) 114. (3) 115. (2) 116. (1)
117. (3) 118. (2) 119. (2) 120. (4)
121. (2) 122. (1) 123. (3) 124. (3)
125. (1) 126. (2) 127. (2) 128. (3)
129. (1) 130. (4) 131. (3) 132. (2)
133. (3) 134. (1) 135. (2) 136. (2)
137. (2) 138. (4) 139. (1) 140. (1)
141. (3) 142. (4) 143. (2) 144. (3)
145. (4) 146. (1) 147. (3) 148. (1)
149. (3) 150. (4) 151. (2) 152. (1)
153. (2) 154. (2) 155. (3) 156. (2)
157. (3) 158. (1) 159. (3) 160. (4)
161. (3) 162. (3) 163. (3) 164. (1)
165. (3) 166. (2) 167. (2) 168. (1)
169. (3) 170. (3) 171. (1) 172. (2)
173. (2) 174. (3) 175. (4) 176. (3)
177. (3) 178. (3) 179. (4) 180. (2)
181. (4) 182. (4) 183. (3) 184. (1)
185. (1) 186. (4) 187. (1) 188. (4)
189. (3) 190. (1) 191. (1) 192. (2)
193. (2) 194. (2) 195. (3) 196. (4)
197. (2) 198. (1) 199. (1) 200. (3)

### ANSWERS WITH EXPLANATION

#### GENERAL INTELLIGENCE

1.(1) Minutes together constitute Days and Days together, in turn, constitute Months.



4.(2) In this arrangement

F will be opposite B.

E will be opposite C.

A will be opposite D.

On the basis of this formulation we can opt (2) as the answer.

6.(2) The symbols +, Δ and O lie on the adjacent faces of the symbol + and hence these cannot be on the opposite face of +.

Considering all the four views of dice, it is clear that

Δ lies opposite O.

+ lies opposite x.

÷ lies opposite -.

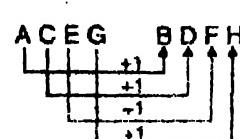
15.(2) The first is kept in the second.

16.(4) In this question the first term is related to the third term. Bird and Aeroplane make movement in the air. Similarly, Fish and Ship move in water.

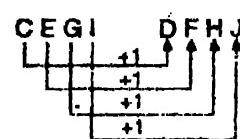
17.(2) The first is the constituent of the second.

19.(4) First is the instrument used for measuring the second.

20.(1)



Similarly,



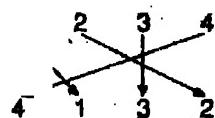
21.(3) In the code the two adjacent letters have been interchanged. Thus,

N	U	M	B	E	R
U	N	B	M	R	E

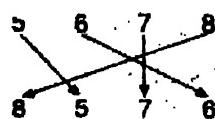
Similarly,

G	H	O	S	T	S
H	G	S	O	S	T

22.(2)



Similarly,



$$23.(2) 856 - 763 = 93$$

Therefore,

$$? = 637 + 93 = \boxed{730}$$

$$24.(3) 3 + 6 = 9 \text{ and } 3 + 2 + 4 = 9$$

Similarly,

$$4 + 9 = 13 \text{ and } 4 + 1 + 4 + 4 = 13$$

$$25.(2) (7)^2 = 49 \text{ and } (7 + 2)^2 = 81$$

Similarly,

$$(8)^2 = 64 \text{ and } (8 + 2)^2 = 100$$

26.(4) The inner design is enlarged and the outer design is reduced in size, and it becomes inverted and touches the enlarged inner design.

27.(4) The second figure is the mirror image of the first figure.

28.(3) From first figure to second figure the entire design rotates 90° anticlockwise.

29.(3) From first figure to second the entire design is laterally reversed and the arrow-heads are replaced by a larger curve. Therefore, in the second unit the curve would be replaced by three arrow-heads after the design is rotated 180°.

30.(3) The second figure is the upside down image of the first figure and the shaded portion moves to the opposite side.

31.(3) All except Rifle are used for

cutting.

32.(4) All except Saxophone are stringed instruments.

33.(4) All except Jammu are southern states of India.

34.(1) All others are parts of a plant.

36.(4) Except figure (4) all others have been divided into six parts.

37.(4) Except figure (4) all others have been divided into four equal parts.

38.(3) Except figure (3) all other figures consist of three line segments. Figure (3) consists of four line segments.

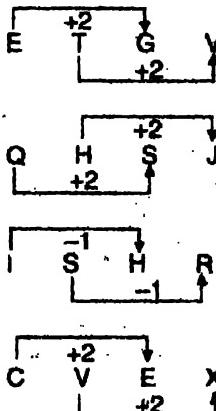
39.(1) Except figure (1) all other figures have been divided by vertical line.

40.(4) Except figure (4), in all other figures the two line segments form an acute angle.

41.(4) Except T, all other letters consist of three line segments. Again, the water-image and the mirror image of letters N, H and Z appear identical.

42.(4) Except LEAN all other words have been formed by the letters E, I, L and N.

43.(3)



44.(2) Except 36, all others are multiples of 11.

45.(1) In all other pairs there is difference of 11 between the two numbers.

$$52 + \boxed{9} = 61$$

$$43 + 11 = 54$$

$$72 + 11 = 83$$

$$18 + 11 = 29$$

46.(2) In all other cases

Second Number =  $2 \times$  First Number and,

Third Number = 2 + Second Number.

$$18 \times 2 = 36 \text{ and } 36 + 2 = 38$$

$$21 \times 2 = 42 \text{ and } 42 + 2 = 44$$

$$16 \times 2 = 32 \text{ and } 32 + 2 = 34$$

But

$$14 \times 2 = 28 \text{ and } 28 + 2 = \boxed{30}$$

47.(2) In each subsequent figure one line segment is added in a set order.

48.(1) In each subsequent figure 'T' rotates 90° clockwise and alternately becomes separated. The other design is based on the rule (1) = (3) and hence (2) = (4).

49.(4) In each subsequent figure all the designs move one step in anticlockwise direction.

50.(1) In each subsequent figure two designs are added to the middle part, lower part and upper part respectively.

51.(4) In each subsequent figure the three small squares move in anticlockwise direction.

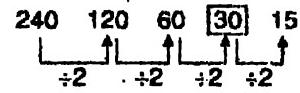
52.(3) The given number series is based on the following pattern :

$$19 + 4 = 23 \text{ & } 23 + 3 = 26$$

$$26 + 4 = 30 \text{ & } 30 + 3 = 33$$

$$33 + 4 = \boxed{37}$$

53.(3)



54.(3) The given number series is based on the following pattern :

$$1 + 2 \times 1 = 3$$

$$3 + 2 \times 2 = 7$$

$$7 + 2 \times 3 = 13$$

$$13 + 2 \times 4 = 21$$

$$21 + 2 \times 5 = \boxed{31}$$

55.(2) The given number series is based on the following pattern :

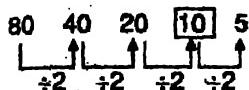
$$133 - 14 = 119$$

$$119 - 14 = 105$$

$$105 - 14 = 91$$

$$91 - 14 = \boxed{77}$$

56.(1)



57.(3)

$$\begin{aligned} z &\xrightarrow{-1} y \xrightarrow{-1} x \xrightarrow{-1} w \\ t &\xrightarrow{-1} s \xrightarrow{-1} r \xrightarrow{-1} q \\ w &\xrightarrow{-1} v \xrightarrow{-1} u \xrightarrow{-1} t \end{aligned}$$

58.(2)

$$\begin{aligned} d &\xrightarrow{+3} g \xrightarrow{+4} k \xrightarrow{+3} n \xrightarrow{+4} r \xrightarrow{+3} u \\ f &\xrightarrow{+4} j \xrightarrow{+3} m \xrightarrow{+4} q \xrightarrow{+3} t \xrightarrow{+4} x \end{aligned}$$

59.(2)

$$g \xrightarrow{+2} \boxed{9} \xrightarrow{+3} \boxed{12} \xrightarrow{+4} \boxed{16} \xrightarrow{+5} \boxed{21} \xrightarrow{+2} y$$

$$\begin{aligned} 60.(2) m &[n] o m / m n [o] m / [m] \\ &n o m / m n [o] m \end{aligned}$$

$$61.(3) \boxed{Q} P S R / Q \boxed{P} S R / Q$$

$$P \boxed{S} R / Q P S \boxed{R}$$

62.(3) P → June (30 Days)

Q → July (31 Days)

R → August (31 Days)

S → September (30 Days)

63.(3) According to question

$$F = M + 5,$$

$$M = 3D$$

$$D = 10 \text{ years}$$

$$\therefore M = 3 \times 10 = 30 \text{ years}$$

Therefore, father's present age

$$= 30 + 5 = 35 \text{ years}$$

$$\text{Required answer} = 35 - 10$$

$$= 25 \text{ years}$$

64.(3) Required answer

$$= (7 + 7) - 1 = 13$$

65.(2) B > A > C .....(i)

A > D > C .....(ii)

B > E > A .....(iii)

From statements (i), (ii) and (iii)

$$B > E > A > D > C$$

It is clear that C is the shortest.

66.(4) In 3 hours A would cover

$$= 5 \times 3 = 15 \text{ km}$$

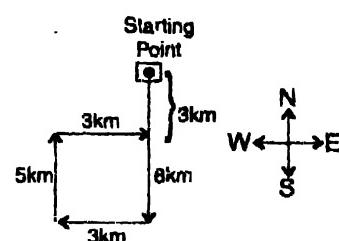
In 3 hours B would cover =  $4 \times 3$

$$= 12 \text{ km}$$

Thus, now they are  $15 + 12$

$$= 27 \text{ km apart.}$$

67.(4)



It is clear from the diagram that Ashok was in South direction from the starting point.

68.(4) X is the husband of Y.

Therefore Y is the wife of X.

W is the daughter of X and Y.

Z is the husband of W.

N is the daughter of Z and W.

Thus, N is the granddaughter of Y

69.(3) F = 6 → Position Number in the English alphabet.

And

$$\begin{array}{ccc} J & O & Y \\ \downarrow & \downarrow & \downarrow \\ 10 & 15 & 25 = 50 \end{array}$$

Similarly,

$$\begin{array}{cccccc} O & B & S & E & R & V & E \\ \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ 15 & 2 & 19 & +5 & +18 & +22 & +5 = 86 \end{array}$$

$$\begin{array}{cccccc} 70.(2) & R & A & M & A & N \\ & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ & 1 & 2 & 3 & 2 & 5 \end{array}$$

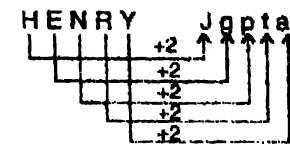
And

$$\begin{array}{cccccc} D & I & N & E & S & H \\ \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ 6 & 7 & 5 & 4 & 8 & 9 \end{array}$$

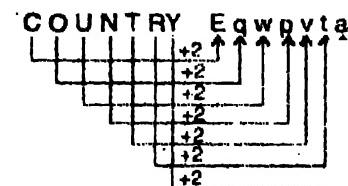
Therefore,

$$\begin{array}{cccccc} H & A & M & A & M \\ \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ 9 & 2 & 3 & 2 & 3 \end{array}$$

71.(2)



Similarly,



72.(1) M A R S

$\downarrow \downarrow \downarrow \downarrow$

Z N E F

Thus,

A R M S

$\downarrow \downarrow \downarrow \downarrow$

N E Z F

73. (2) D E A R

$\downarrow \downarrow \downarrow \downarrow$

II II I V

74.(2) 1 5 3 8

$\downarrow \downarrow \downarrow \downarrow$

^ V - \*

75.(4) Therefore is letter O in the keyword and hence the word NEGRO cannot be formed.

There is no letter A in the keyword and hence the words AGREE and RAIN cannot be formed.

76.(1) There is only one 'E' in the keyword and hence the word EXAMINE cannot be formed.

77.(3) H [E] AT ; HID [E] :

MEAN ; WEAR

OR

HAT [E] ; MAN [E] :

HID [E] ; WAR [E] :

78.(3) The sum of upper two numbers is equal to the lower number.

$$22 + 10 = 32$$

$$14 + 74 = 88$$

Similarly,

$$33 + 26 = \boxed{59}$$

79.(3) The product of the two diagonally opposite numbers is equal to the central number.

$$12 \times 5 = 60 \text{ and } 15 \times 4 = 60$$

$$3 \times 14 = 42 \text{ and } 7 \times 6 = 42$$

Similarly,

$$13 \times 6 = 78 \text{ and } 26 \times 3 = 78$$

80.(3) If we proceed in clockwise direction the next number is 6 less than the previous number.

$$27 - 6 = 21$$

$$21 - 6 = 15$$

Therefore,

$$15 - 6 = 9$$

81.(2) Multiply the first number by the second number and then add the third number to the product so obtained in each column to get the result.

$$6 \times 8 = 48 \text{ and } 48 + 3 = 51$$

$$15 \times 4 = 60 \text{ and } 60 + 5 = 65$$

$$20 \times 5 = 100 \text{ and } 100 + 20 = 120$$

82.(2) The product of the first three numbers is equal to the fourth in each column.

$$9 \times 3 \times 3 = 81$$

$$11 \times 4 \times 4 = 176$$

Therefore,

$$13 \times 7 \times ? = 455$$

$$\text{or, } ? = \frac{455}{13 \times 7} = 5$$

### 83.(2) Premises

$$7X < 3Y \text{ and}$$

$$6Y > 2Z$$

$$\text{or, } 6Y \leq 2Z$$

Therefore,

$$7X < 2Z \Rightarrow 7X < 2Z$$

### 84.(3)

$$L \xrightarrow{+3} O \xrightarrow{+3} R$$

$$B \xrightarrow{+3} E \xrightarrow{+3} H$$

$$Q \xrightarrow{+1} R \xrightarrow{+1} S$$

$$K \xrightarrow{+3} N \xrightarrow{+3} Q$$

### 85.(4)

$$\begin{array}{ccccc} 3 & & 4 & & 3 \\ S & T & U & V & W \\ X & Y & Z & A & B \\ C & D & E & F & G \\ \end{array}$$

$$\begin{array}{ccccc} 4 & & 4 & & \\ F & G & H & I & J \\ K & L & M & N & O \\ P & & & & \\ \end{array}$$

$$\begin{array}{ccccc} 3 & & 4 & & 4 \\ N & O & P & Q & R \\ S & T & U & V & W \\ X & Y & Z & A & B \\ \end{array}$$

$$\begin{array}{ccccc} 3 & & 4 & & 3 \\ H & I & J & K & L \\ M & N & O & P & \\ \end{array}$$

$$\begin{array}{ccccc} 3 & & 4 & & 3 \\ E & F & G & H & I \\ J & K & L & M & N \\ O & P & Q & R & \\ \end{array}$$

$$\begin{array}{ccccc} 4 & & 3 & & 4 \\ S & T & U & V & W \\ X & Y & Z & A & B \\ C & D & E & F & \\ \end{array}$$

### 86.(1)

$$\begin{array}{ccc} 1 & 2 & 3 \\ 14 & \times & 28 & \times & 15 \end{array}$$

$$\begin{array}{ccc} 2 & 1 & 3 \\ 28 & \times & 14 & \times & 15 \end{array}$$

Similarly,

$$\begin{array}{ccc} 21 & \times & 15 & \times & 12 \\ \cancel{15} & & \cancel{21} & & \downarrow \\ & & & & 12 \end{array}$$

### 87.(1)

$$A \xrightarrow{+3} D \xrightarrow{+4} H \xrightarrow{+5} M \xrightarrow{+6} S \xrightarrow{+7} Z \xrightarrow{+8} H$$

88.(1) We can the premises by changing their order :

Some citizens are soldiers.

All soldiers are men.

We know that

$$I + A \rightarrow I \text{ type conclusion}$$

Thus, our derived conclusion would be :

"Some citizens are men".

90.(4) We can align the premises by converting the second premise.

All Americans are English speaking

No English speakers are Eskimos.

We know that,

$$A + E \rightarrow E \text{ type conclusion}$$

Thus, our derived conclusion would be :

"No Americans are Eskimos."

Conclusion I is the converse of the derived conclusion.

Conclusion II is the converse of second premise.

91.(2) We can align the premises by converting the second premise.

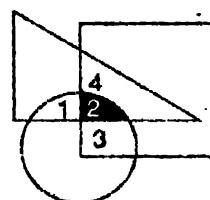
All children are playful.

Some playfulness are animals.

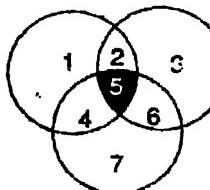
We know that;

$$A + I \rightarrow \text{No conclusion.}$$

97.(4) The digit 2 is common in all the three diagrams. Therefore our required answer would be option (4)

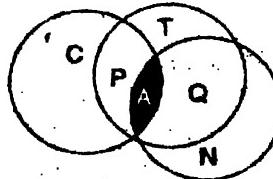


98.(2) The digit 5 is common in all the three circles. Therefore, our required answer would be option (2).



99.(1) The digit 5 is common to all the three circles. Therefore, it represents students who study all the three subjects.

100.(2) The letter 'A' is common to all the three circles. Therefore, our required answer is option (2).



## SOLVED PAPERS

# RRB BANGALORE CLERK EXAM.

Held on : 22.08.1999

(BASED ON MEMORY)

## MATHEMATICS

1.  $\sqrt{225} + 0.5 + 125 = ?$

- (1) 141.5    (2) 126.5  
 (3) 140.5    (4) 135.5

2.  $\frac{\sqrt{289}}{16} \times \frac{\sqrt{256}}{17} + 362 = ?$

- (1) 363    (2) 362  
 (3) 724    (4) 1.3

3.  $\frac{17}{40} + \frac{12}{16} + \frac{1}{8} = ?$

- (1) 13    (2) 12  
 (4) 1.2    (4) None of these

4.  $? \times 12 = 75\% \text{ of } 336$

- (1) 21    (2) 48  
 (3) 252    (4) None of these

5.  $\frac{3}{7} \times 2 - \frac{1}{9} \times 2 - \frac{4}{19} = ?$

- (1) 4    (2) 5  
 (3) 2    (4) 3

6. The largest angle of a quadrilateral is two times the smallest angle. If the angles form a series (a, a + d, a + 2d, a + 3d), the other two angles would be

- (1) 60°, 120°    (2) 80°, 100°  
 (3) 90°, 110°    (4) 70°, 90°

7. The length of the longest pole that can be kept inside a room of dimension 12m  $\times$   $3\sqrt{3}$  m  $\times$  5m is

- (1) 10m    (2) 11m  
 (3) 12m    (4) 14m

8. The difference between two numbers is 8 and their ratio is 1 : 5. Which of the following is the bigger number?

- (1) 2    (2) 6  
 (3) 10    (4) Can't say

9. Average marks in Maths in a class of 40 students is 45. Average of all the 30 boys is 50. Then the average marks obtained by the girls is

- (1) 30    (2) 35  
 (3) 25    (4) Can't say

10. If 42 men can complete a work in 15 days, how many men are required to complete it in 21 days?

- (1) 24    (2) 26  
 (3) 30    (4) None of these

11. At present M is 15 years older than K. After 5 years, K will be 10 years old. What is M's present age?

- (1) 20 yrs.    (2) 25 yrs.  
 (3) 15 yrs.    (4) None of these

12. A trader bought 30 kgs of rice at Rs. 10.50 per kg. and mixed it with 20 kgs of rice bought at Rs. 12.00 per kg. He sold the mixture at Rs. 11.50 per kg. Then he would

- (1) Lose Rs. 20/-  
 (2) Neither lose nor gain  
 (3) Gain Rs. 20/-  
 (4) Can't say

13. To fill a tank, taps a, b and c takes 20 mins., 15 mins. and 12 mins. respectively. How much time will it take to fill the tank, if all the 3 taps are opened together?

- (1) 10 mins.    (2) 5 mins.  
 (3) 8 mins.    (4) 6 mins.

14. A person borrows Rs. 75/- at the rate of 5% p.a. simple interest. What is the amount to be returned after 6 years?

- (1) Rs. 97.50    (2) Rs. 95.00  
 (3) Rs. 102.50    (4) Rs. 109.00

15. If the circumference of the

wheel of an engine is  $4\frac{2}{7}$  m. and it makes 7 revolutions in 4 seconds, the speed of the engine is

- (1) 27 m/hr.    (2) 30 km/hr.  
 (3) 2.7 km/hr.    (4) 27 km/hr.

16. The length of a minute hand of a wall clock is 10.5 cms. The area swept by it in 10 minutes would be

- (1) 57.75 cm<sup>2</sup>    (2) 5.775 cm<sup>2</sup>  
 (3) 52.75 cm<sup>2</sup>    (4) 59.5 cm<sup>2</sup>

17. Sheet metal required to make a hollow cone of height 24 cm and radius 7 cms is

- (1) 407 cm<sup>2</sup>    (2) 205 cm<sup>2</sup>

- (3) 704 cm<sup>2</sup>    (4) 500 cm<sup>2</sup>

18. The angles of a triangle in ascending order are x, y and z. Further  $y - x = z - y = 10$ . The smallest angle is

- (1) 50°    (2) 60°  
 (3) 40°    (4) 70°

19. Price of onion is increased by 20%. As a result of this, a family reduces its consumption (Qty.) by 20%. The expenditure of the family on onion will

- (1) increase by 2%  
 (2) decrease by 2%  
 (3) increase by 4%  
 (4) decrease by 4%

20. On a product priced at Rs. 10,000/- two companies offer successive discounts of 10%, 10%, 30% and 40%, 5%, 5% respectively. By choosing the better option what is the extra saving?

- (1) Rs. 200/-    (2) Rs. 225/-  
 (3) Rs. 255/-    (4) Rs. 300/-

21. Three spherical balls of radii 6 cm, 8 cm, and R cm. are melted into a sphere of radius 12 cm. What is the value of R?

- (1) 6 cm.    (2) 8 cm.  
 (3) 10 cm.    (4) 12 cm.

22.  $\left[ \left( \frac{5}{\sqrt{x-3/5}} \right)^{-5/3} \right]^5 = ?$

- (1) x    (2)  $\frac{1}{x}$   
 (3)  $x^2$     (4)  $x^4$

23. If  $x + 3$  divides  $x^2 + kx + 12$ . Then k  $\leq$  ?

- (1) 5    (2) 6  
 (3) 7    (4) 8

24. A can of oil is  $4/5$  full. When 6 bottles of oil were taken out and 4 bottles of oil poured in it was  $3/4$  full. How many bottles of oil can the can hold?

- (1) 10    (2) 20  
 (3) 30    (4) 40

25. 300 gms of sugar solution has 40% sugar in it. How much sugar must be added to make it 15% solution?

- (1) 10 gms. (2) 60 gms.  
(3) 50 gms. (4) 20 gms.

$$26. \frac{\sqrt{7} + \sqrt{5}}{\sqrt{7} - \sqrt{5}} = ?$$

- (1)  $6 - \sqrt{35}$  (2) 1

- (3) Zero (4)  $6 + \sqrt{35}$

27. If  $x$  and  $y$  are non-zero unequal rational numbers, then,

$$\frac{(x+y)^2 - (x-y)^2}{x^2 y - xy^2} = ?$$

- (1)  $\frac{1}{xy}$  (2)  $\frac{1}{x-y}$

- (3)  $\frac{4}{x-y}$  (4)  $\frac{2}{x-y}$

$$28. \text{If } x + \frac{1}{x} = 3, \text{ then } x^3 + \frac{1}{x^3} = ?$$

- (1) 18 (2) 27  
(3) 24 (4) 36

29. The lengths of the three sides of a triangle are given below. In which case, it is not possible to construct a triangle?

- (1) 15cm, 12cm, 10cm  
(2) 3.6cm, 4.3cm, 5.7cm  
(3) 17cm, 12cm, 6cm  
(4) 2.3cm, 4.4cm, 6.8cm

30. If  $2 \log(a+b) = \log 16 + \log a + \log b$ , then  $(a^2 + b^2) = ?$

- (1) 5 ab (2) 7 ab  
(3) 14 ab (4) Can't say

31. A tower is observed from a point on the horizontal through the foot of the tower. The distance of this point from the foot of the tower is equal to the height of the tower. The angle of elevation of the top of the tower is

- (1)  $60^\circ$  (2)  $45^\circ$   
(3)  $40^\circ$  (4)  $30^\circ$

32. A number consists of two digits. If the digits in the units place and the tens place are 7 and  $x$  respectively, then the number is

- (1)  $x+7$  (2)  $10x$   
(3)  $x+70$  (4)  $10x+7$

33. A clock gains 15 mins. per day. It was set right at 12 noon. What time will it show at 4 A.M.?

- (1) 4.02 A.M. (2) 4.10 A.M.

- (3) 4.30 A.M. (4) 3.50 A.M.

$$34. \log \left( \frac{m}{n} \right)^a = ?$$

- (1)  $\log am - \log an$   
(2)  $a \log m - a \log n$

$$(3) a \frac{\log m}{\log n}$$

$$(4) \frac{1}{a(\log m - \log n)}$$

35. At present ages of a father and son are in the ratio of 7 : 3 and they will be in the ratio 2 : 1 after 10 years. What is the present age of father?

- (1) 70 years (2) 65 years  
(3) 60 years (4) 50 years

#### SHORT ANSWERS

1. (3) 2. (1) 3. (4) 4. (1)  
5. (3) 6. (2) 7. (4) 8. (3)  
9. (3) 10. (3) 11. (1) 12. (3)  
13. (2) 14. (1) 15. (4) 16. (1)  
17. (3) 18. (1) 19. (4) 20. (3)  
21. (3) 22. (1) 23. (3) 24. (4)  
25. (2) 26. (4) 27. (3) 28. (1)  
29. (4) 30. (3) 31. (2) 32. (4)  
33. (2) 34. (2) 35. (1)

#### ANSWERS WITH EXPLANATION

$$1.(3) ? = \sqrt{225} + 0.5 + 125 = 15 + 0.5 + 125 = 140.5$$

$$2.(1) ? = \frac{\sqrt{289}}{16} \times \frac{\sqrt{256}}{17} + 362 = \frac{17}{16} \times \frac{16}{17} + 362 = 1 + 362 = 363$$

$$3.(4) ? = \frac{17}{40} + \frac{12}{16} + \frac{1}{8} = 1 + \frac{34+60+10}{80} = 1 + \frac{104}{80} = 1 + \frac{13}{10} = 1.3$$

$$4.(1) ? \times 12 = 75\% \text{ of } 336$$

$$? \times 12 = \frac{75 \times 336}{100}$$

$$\therefore ? = \frac{75 \times 336}{100 \times 12} = 21$$

$$5.(3) ? = \frac{3}{7} \times 2 \cdot \frac{1}{9} \times 2 \cdot \frac{4}{19}$$

$$= \frac{3}{7} \times \frac{19}{9} \times \frac{42}{19} = 2$$

6.(2) According to question,  
 $a + a + d + a + 2d + a + 3d = 360^\circ$   
and  $2a = a + 3d$ .

$$\therefore a = 3d$$

$$\therefore 3d + 3d + d + 3d + 2d + 3d + 3d = 360^\circ$$

$$\text{or, } 18d = 360^\circ$$

$$d = 20^\circ$$

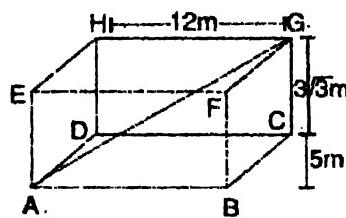
$$\therefore a = 60^\circ$$

$\therefore$  Required answer =  $a + d$  and  $a + 2d$

$$= (60 + 20)^\circ \text{ and } (60 + 40)^\circ$$

$$= 80^\circ \text{ and } 100^\circ$$

7.(4)



According to question,

$$AB = 12m$$

$$FG = BC = 5m$$

$$BF = CG = 3\sqrt{3}m$$

$$\therefore AG = ?$$

We know that

$$AG = \sqrt{(AF)^2 + (FG)^2}$$

$$\text{and } AF = \sqrt{(AB)^2 + (BF)^2}$$

$$= \sqrt{(12)^2 + (3\sqrt{3})^2}$$

$$= \sqrt{144 + 27}$$

$$= \sqrt{171} = 3\sqrt{19}$$

$$\therefore AG = \sqrt{(\sqrt{171})^2 + (5)^2}$$

$$= \sqrt{171 + 25} = \sqrt{196} = 14m$$

8.(3) Let the two numbers be  $x$  and  $y$ .

$\therefore$  According to question,

$$y - x = 8$$

$$\text{and } \frac{x}{y} = \frac{1}{5} \quad \dots (i)$$

$$\text{or, } 5x = y \quad \dots (ii)$$

From equations (i) and (ii)

$$5x - x = 8$$

$$4x = 8$$

$$x = 2$$

$$\therefore y = 5x = 5 \times 2 = 10$$

9.(3) According to question,  
Average marks in Maths in a class  
of 40 = 45.

$\therefore$  Total marks in Maths in a class  
of 40 =  $40 \times 45 = 1800$ .

Average of 30 boys = 50.

$\therefore$  Total of 30 boys =  $50 \times 30$

= 1500.

$\therefore$  Required answer

$$\frac{(1800 - 1500)}{(40 - 30)} = \frac{300}{10} = 30$$

10.(3) We know that

$$M_1 D_1 W_1 = M_2 D_2 W_2$$

According to question,

$$M_1 = 42, D_1 = 15$$

$$W_1 = W_2 = 1$$

$$M_2 = x, D_2 = 21$$

$$\therefore 42 \times 15 \times 1 = x \times 21 \times 1$$

$$x = \frac{42 \times 15}{21} = 30$$

11.(1) According to question,

$$K + 15 = M \quad \dots (i)$$

$$\text{and } K = 5 \text{ years} \quad \dots (ii)$$

$\therefore$  From equations (i) and (ii)

$$M = 5 + 15 = 20 \text{ years}$$

12.(3) Cost price of 30kg of rice  
at the rate of Rs. 10.50 per kg

$$= 10.50 \times 30 = \text{Rs. 315}$$

Cost price of 20kg of rice at the rate  
of Rs. 12.00 per kg =  $12.00 \times 20$

$$= \text{Rs. 240}$$

$\therefore$  Total cost price of 50kg rice

$$= \text{Rs. } 315 + \text{Rs. } 240 = \text{Rs. } 555$$

S.P. of 50kg rice =  $\text{Rs. } 50 \times 11.50$

$$= \text{Rs. } 575$$

Profit =  $\text{Rs. } 575 - \text{Rs. } 555 = \text{Rs. } 20$

13.(2) According to question,

$$1 \text{ min. work of tap a} = \frac{1}{20}$$

$$1 \text{ min. work of tap b} = \frac{1}{15}$$

$$1 \text{ min. work of tap c} = \frac{1}{12}$$

$\therefore 1 \text{ min. work of taps (a + b + c)}$

$$= \frac{1}{20} + \frac{1}{15} + \frac{1}{12}$$

$$= \frac{3+4+5}{60} = \frac{12}{60} = \frac{1}{5}$$

$\therefore$  Required answer = 5 minutes.

14.(1) We know that

$$\text{S.I.} = \frac{\text{PRT}}{100}$$

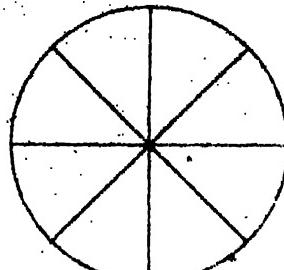
$$= \text{Rs. } 22.50$$

$\therefore$  Required amount

$$= \text{Rs. } 75 + \text{Rs. } 22.50 = \text{Rs. } 97.50$$

15.(4) According to question,

$$\text{Circumference} = 2\pi r$$



Wheel

$$\therefore 2\pi r = 4 \frac{2}{7} \text{ metres}$$

$$\text{or, } \frac{2 \times 22 \times r}{7} = \frac{30}{7} \text{ m}$$

$$r = \frac{30}{44} = \frac{15}{22} \text{ m}$$

$\therefore$  Total distance covered in 7 revolutions =  $7 \times 2\pi r$

$$= \frac{30 \times 7}{7} = 30 \text{ m}$$

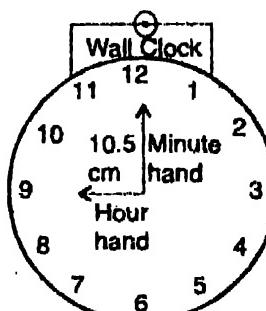
We know that,

$$\text{Speed} = \frac{\text{Distance}}{\text{Time}}$$

$$= \frac{30 \text{ m/sec}}{4} = \frac{30 \times 60 \times 60}{4 \times 1000} \text{ km/hr.}$$

$$= 27 \text{ km/hour}$$

16.(1)



According to question,

Length of minute hand = 10.5 cms

$\therefore$  Total area of wall clock =  $\pi r^2$

$$= \frac{22}{7} \times 10.5 \times 10.5 = 346.5 \text{ cm}^2$$

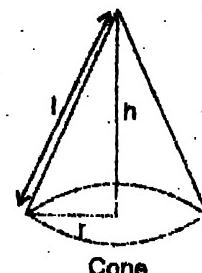
Since minute hand of wall clock  
covers  $346.5 \text{ cm}^2$  area in 60 minutes

$\therefore$  Area covered by minute hand in  
10 minutes

$$= \frac{346.5}{60} \times 10$$

$$= 57.75 \text{ cm}^2$$

17.(3) According to question,



$$h = 24 \text{ cm}$$

$$r = 7 \text{ cm}$$

$$\therefore l = \sqrt{h^2 + r^2}$$

$$= \sqrt{(24)^2 + (7)^2}$$

$$= \sqrt{576 + 49} = \sqrt{625} = 25 \text{ cm}$$

We know that

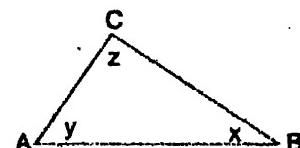
Total surface area of the cone

$$= \pi rl + \pi r^2$$

$$= \left(\frac{22}{7} \times 7 \times 25 + \frac{22}{7} \times 7 \times 7\right) \text{ cm}^2$$

$$= (550 + 157) \text{ cm}^2 = 704 \text{ cm}^2$$

18.(1)



We know that

$$x + y + z = 180^\circ \quad \dots (i)$$

and according to question,

$$y - x = z - y = 10 \quad \dots (ii)$$

$$2y = z + x = 10$$

$$\therefore y = 5$$

$$\text{and } z + x = 10 = 2y$$

$$\therefore 10 + 5 = 180^\circ$$

$$15 = 180^\circ$$

$$\therefore 1 = 12^\circ$$

$$\therefore y = 60^\circ \text{ and } z + x = 120^\circ$$

It is clear from equation (ii) that the value of  $x$  will be 50, because in that case only we fulfill the required condition.

19.(4) Let the price and consumption each be 100 units.

Then earlier his expenditure was

$$= \text{Rs. } (100 \times 100) = \text{Rs. } 10000$$

Now the new price = 120

and new consumption = 80

$\therefore$  New expenditure

$$= \text{Rs. } (120 \times 80)$$

$$= \text{Rs. } 9600$$

∴ Percentage decrease

$$\therefore \frac{400}{10000} \times 100 = 4\%$$

### 20.(3) First company

Successive discount of 10% and 10%

$$= 10 + 10 - \frac{10 \times 10}{100} = 20 - 1 = 19\%$$

Similarly a single discount which is equivalent to two successive discounts 19% and 30%

$$= 19 + 30 - \frac{19 \times 30}{100}$$

$$= 49 - 5.7 = 43.3\%$$

∴ Actual S.P. of first company

$$= \text{Rs. } 5670.$$

Similarly,

### For second company

A single discount equivalent to two successive discounts 40% and 5%

$$= 40 + 5 - \frac{40 \times 5}{100}$$

$$= 45 - 2 = 43\%$$

And a single discount equivalent to two successive discounts 43% and 5%

$$= 43 + 5 - \frac{43 \times 5}{100}$$

$$= 48 - 2.15 = 45.85$$

∴ Actual S.P. of second company

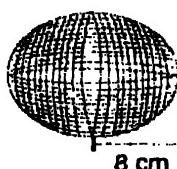
$$= \text{Rs. } 5415$$

∴ Required answer

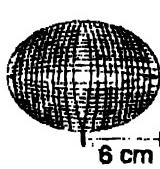
$$= 5670 - 5415$$

$$= \text{Rs. } 255$$

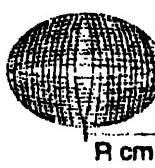
21.(3)



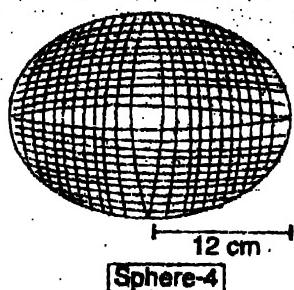
Sphere-1



Sphere-2



Sphere-3



Sphere-4

$$\text{Volume of sphere } 1 = \frac{4}{3} \pi r^3$$

$$= \frac{4}{3} \times \frac{22}{7} \times (8)^3$$

$$= 2145.52 \text{ cm}^3$$

$$\text{Volume of sphere } 2 = \frac{4}{3} \times \frac{22}{7} \times (6)^3$$

$$= 905.14 \text{ cm}^3$$

$$\text{Volume of sphere } 3 = \frac{4}{3} \pi R^3$$

Volume of sphere 4

$$= \frac{4}{3} \times \frac{22}{7} \times (12)^3$$

$$= 7241.142 \text{ cm}^3$$

∴ According to question,

$$2145.52 + 905.14 + \frac{4}{3} \pi R^3$$

$$= 7241.42$$

$$\text{or, } \frac{4}{3} \pi R^3$$

$$= 7241.142 - 2145.52 - 905.14$$

$$= 4190.4828$$

$$R^3 = \frac{4190.4828 \times 3 \times 7}{4 \times 22}$$

$$= 1000$$

$$\therefore R = \sqrt[3]{10 \times 10 \times 10}$$

$$= 10 \text{ cm}$$

$$22.(1) ? = \left[ \left( \frac{\sqrt[3]{\frac{3}{5}}}{x^5} \right)^{-5/3} \right]^5$$

$$= \left[ \left( \frac{1}{\sqrt[5]{x^5}} \right)^{-5/3} \right]^5$$

$$= \left[ \left( \frac{1}{x^{25}} \right)^{-5/3} \right]^5$$

$$= \left[ \frac{\frac{3}{5} \times 5}{x^{25}} \right]^5$$

$$= \left[ \frac{1}{x^5} \right]^5 = x^{-5} = x$$

23.(3) Let the two factors of  $x^2 + kx + 12$  is  $(x + a)$  and  $(x + 3)$

$$\therefore \text{Product of } (x + a) \text{ and } (x + 3)$$

$$= x(x + 3) + a(x + 3)$$

$$= x^2 + 3x + ax + 3a$$

∴ According to question,

$$3a = 12$$

$$\therefore a = 4$$

∴ After putting the value of a in

$$x^2 + 3x + 4x + 3 \times 4$$

$$= x^2 + 7x + 12$$

$$\therefore k = 7$$

24.(4) According to question,

$$2 \text{ bottles} = \frac{4}{5} - \frac{3}{4}$$

$$= \frac{16 - 15}{20} = \frac{1}{20}$$

Since,  $\frac{1}{20}$  part = 2 bottles

$$\therefore 1 = 40 \text{ bottles}$$

25.(2) 40% of 300 gms = 120 gms.

∴ 60 gms. of sugar should be added to make it 50% of sugar solution.

$$\text{i.e. } 300 + 60 = 360 \text{ gms.}$$

$$\text{Sugar} = 120 + 60 = 180 \text{ gms.}$$

$$\text{i.e. } 50\% \text{ of } 360 \text{ gms.}$$

$$26.(4) ? = \frac{\sqrt{7} + \sqrt{5}}{\sqrt{7} - \sqrt{5}}$$

$$= \frac{(\sqrt{7} + \sqrt{5}) \times (\sqrt{7} + \sqrt{5})}{(\sqrt{7} - \sqrt{5}) \times (\sqrt{7} + \sqrt{5})}$$

$$= \frac{(\sqrt{7} + \sqrt{5})^2}{(\sqrt{7})^2 - (\sqrt{5})^2}$$

$$= \frac{7 + 5 + 2 \times \sqrt{7} \times \sqrt{5}}{2}$$

$$= \frac{12 + 2\sqrt{35}}{2} = 6 + \sqrt{35}$$

$$27.(3) ? = \frac{(x+y)^2 - (x-y)^2}{x^2 y - xy}$$

$$= \frac{x^2 + y^2 + 2xy - [x^2 + y^2 - 2xy]}{x^2y - xy^2}$$

$$= \frac{x^2 + y^2 + 2xy - x^2 - y^2 + 2xy}{x^2y - xy^2}$$

$$\therefore = \frac{4xy}{xy(x-y)} = \frac{4}{x-y}$$

$$28.(1) \because x + \frac{1}{x} = 3$$

$$\therefore \left(x + \frac{1}{x}\right)^3 = (3)^3$$

$$\left(x + \frac{1}{x}\right)^3 = 27$$

$$x^3 + \frac{1}{x^3} + 3 \times x \times \frac{1}{x} \times \left(x + \frac{1}{x}\right) = 27$$

$$x^3 + \frac{1}{x^3} + 3 \times 3 = 27$$

$$x^3 + \frac{1}{x^3} = 27 - 9$$

$$\therefore x^3 + \frac{1}{x^3} = 18$$

29.(4) The sum of any two sides of a triangle should be greater than third sides.

In case of option (4)

$$2.3 \text{ cm} + 4.4 \text{ cm} = 6.7 \text{ cm}$$

Since, the 6.7 cm is not greater than third side i.e. 6.8 cm. Therefore, we can't construct a triangle.

$$30.(3) 2 \log(a+b) = \log(a+b)^2$$

$$\text{and } \log 16 + \log a + \log b$$

$$= \log(16 \times a \times b) = \log(16ab)$$

According to question,

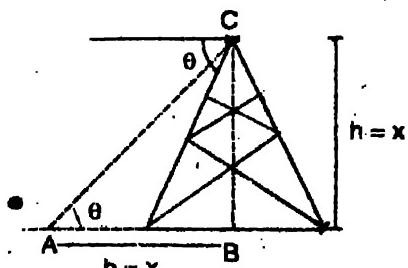
$$\log(a+b)^2 = \log(16 \times ab)$$

$$\therefore (a+b)^2 = 16ab$$

$$\text{or, } a^2 + b^2 + 2ab = 16ab$$

$$\therefore a^2 + b^2 = 16ab - 2ab = 14ab$$

31.(2)



$$\therefore \tan\theta = \frac{x}{x}$$

$$\text{or, } \tan\theta = 1$$

$$\therefore \theta = 45^\circ$$

32.(4) From visual inspection it is clear that the required number is  $10x+7$ .

$$33.(2) 24 \text{ hours} \Rightarrow 24.25 \text{ hours}$$

$$\therefore 16 \text{ hours} \Rightarrow \frac{24.25}{24} \times 16$$

$$\Rightarrow 4.10 \text{ A.M.}$$

$$34.(2) ? = \log \left( \frac{m}{n} \right)^a$$

$$= a \log \left( \frac{m}{n} \right)$$

$$= a [\log m - \log n]$$

$$= a \log m - a \log n$$

35.(1) Let present age of father and son be  $x$  and  $y$  years respectively.

$\therefore$  According to question,

$$\frac{x}{y} = \frac{7}{3} \Rightarrow x = \frac{7}{3}y \quad \dots (i)$$

$$\text{and } \frac{x+10}{y+10} = \frac{2}{1}$$

$$x+10 = 2y+20$$

$$x = 2y+10 \quad \dots (ii)$$

From equation (i) and (ii)

$$\frac{7}{3}y = 2y+10$$

$$\frac{7}{3}y - 2y = 10$$

$$y = 30 \text{ years}$$

$$\therefore x = 2 \times 30 + 10 = 70 \text{ years.}$$

## SCIENCE

1. Initial velocity of a body moving with uniform acceleration of  $10 \text{ m/sec}^2$  is  $10 \text{ m/sec}$ . Distance travelled by the body in 10 seconds is

$$(1) 500 \text{ m.} \quad (2) 1000 \text{ m.}$$

$$(3) 1100 \text{ m.} \quad (4) 600 \text{ m.}$$

2. The sum of the kinetic and potential energies of a falling body is

$$(1) Constant at all points$$

$$(2) Maximum at the beginning$$

$$(3) Minimum at the beginning$$

$$(4) Maximum at the middle$$

3. All liquid surfaces tend to contract. This phenomenon is due to

(1) Viscosity

(2) Thermal expansion

(3) Surface tension

(4) Diffusion

4. Buoyancy depends on

(1) Depth to which the body is immersed

(2) Shape of the body

(3) Mass of body

(4) Mass of liquid displaced

5. An object thrown upward with a velocity of  $128 \text{ ft/sec.}$  will return in

(1) 4 secs.

(2) 8 secs.

(3) 16 secs.

(4) 32 secs.

6. A metallic bar  $50 \text{ cm.}$  long,  $10 \text{ cm}$  wide and  $4 \text{ cm.}$  high weighs  $2 \text{ kg.}$  What is its density?

(1)  $2000 \text{ g/cc}$

(2)  $10 \text{ g/cc}$

(3)  $30 \text{ g/cc}$

(4)  $1 \text{ g/cc}$

7. What is the work done in lifting an object of  $400 \text{ lbs}$  to a height of  $100 \text{ ft.}$ ?

(1)  $4000 \text{ ft. lbs.}$

(2)  $40,000 \text{ ft. lbs.}$

(3)  $4 \text{ ft. lbs.}$

(4) None of these

8.  $\text{CuSO}_4$  solution turns

(1) Red litmus blue

(2) Phenolphthalein solution pink

(3) Blue litmus red

(4) None of these

9. Which of the following is a scalar quantity?

(1) Area

(2) Electric field

(3) Linear momentum

(4) Pressure

10. If linear momentum is increased by  $50\%$ , the kinetic energy will increase by

(1)  $50\%$       (2)  $125\%$

(3)  $225\%$       (4)  $25\%$

11. On increasing temperature, the viscosity of a gas

(1) decreases

(2) increases

(3) remains unchanged

(4) None of these	(2) Leprosy	(3) > 100 ml. (4) 1000 ml.
12. Which of the following can be used to measure temperature?	(3) Diabetes	30. The nucleus of an atom consists of
(1) Pyrometer	(4) Albinism	(1) Protons
(2) Photometer	22. A RBC can carry oxygen with it because	(2) Neutrons
(3) Barometer	(1) it has nucleus	(3) Protons and neutrons
(4) Hygrometer	(2) it has plasma	(4) Protons, neutrons and electrons
13. In vacuum, the speed of light depends upon	(3) it has haemoglobin	31. Gold is soluble in
(1) Wavelength	(4) it is red in colour	(1) HCl (2) $H_2SO_4$
(2) Frequency	23. Blood vessels that carry blood from heart to different parts of body are known as	(3) $HNO_3$ (4) Aqua regia
(3) Intensity	(1) arteries	32. Iron is extracted from
(4) None of these	(2) veins	(1) Haematite (2) Cryolite
14. Colour of light is determined by its	(3) nerves	(3) Azurite (4) Lepidolite
(1) velocity in air	(4) None of these	33. A detergent is a
(2) frequency	24. The most important function of food is to	(1) Soap
(3) amplitude	(1) satisfy hunger	(2) Catalyst
(4) None of these	(2) relish taste	(3) Water softener
15. A neutron will	(3) get energy	(4) Cleaning agent
(1) be attracted by an electron	(4) help growth of body	34. Domestic common salt is
(2) be repelled by an electron	25. Liver cells manufacture	(1) Sodium peroxide
(3) be attracted by a proton	(1) amylopsin (2) maltase	(2) Sodium chloride
(4) experience no force when brought near electron or proton	(3) lipase (4) bile	(3) Iodine
16. Study of birds is called	26. Water and alcohol may be separated by	(4) Sodium nitrate
(1) Ornithology	(1) evaporation	35. Correct symbol of Gold is
(2) Virology	(2) filtration	(1) Go (2) Ag
(3) Physiology	(3) distillation	(3) Ge (4) Au
(4) Pathology	(4) fractional distillation	
17. Heat flows as a result of difference in	27. A chemical change occurs when	<b>SHORT ANSWERS</b>
(1) density	(1) iron rusts	1. (4) 2. (1) 3. (3) 4. (4)
(2) mass	(2) iron is magnetised	5. (2) 6. (4) 7. (4) 8. (2)
(3) temperature	(3) iron is heated	9. (1) 10. (2) 11. (1) 12. (1)
(4) force	(4) iron melts	13. (4) 14. (3) 15. (4) 16. (1)
18. Watergas is the same as	28. An exothermic reaction is one which	17. (3) 18. (1) 19. (4) 20. (2)
(1) steam (2) $CO_2$ and steam	(1) is accompanied with absorption of heat	21. (1) 22. (3) 23. (1) 24. (3)
(3) $CO$ and $H_2$ (4) $CO_2$ and $H_2$	(2) is unaffected by external pressure.	25. (4) 26. (4) 27. (1) 28. (3)
19. Chromosomes are made up of	(3) is accompanied by liberation of heat.	29. (2) 30. (3) 31. (4) 32. (1)
(1) DNA	(4) does not involve any heat change.	33. (4) 34. (2) 35. (4)
(2) RNA	29. If 100 ml. of gas at $10^\circ C$ is heated to $20^\circ C$ under constant pressure, the resulting volume of gas will be	
(3) RNA + Proteins	(1) 50 ml (2) 200 ml.	
(4) DNA + Proteins		
20. The blood group referred to as universal donor is		
(1) A (2) O		
(3) AB (4) B		
21. Which of the following is a sex related character?		
(1) Colour blindness		

#### ANSWERS WITH EXPLANATION

1. (4)  $u = 10 \text{ m/sec}$ . [initial velocity]

$a = 10 \text{ m/sec}^2$  [acceleration]

$t = 10 \text{ seconds}$  [time]

$S = ?$  [distance travelled]

$$S = ut + \frac{1}{2} at^2$$

## SOLVED PAPERS OF RRB, BANGALORE EXAM.

$$= 10 \times 10 + \frac{1}{2} \times 10 \times 10 \times 10 \text{ m}$$

$$= 100 + 500 \text{ m.} = 600 \text{ m.}$$

**2.(1) By energy conservation law :**  
Energy is a conserved quantity. It can neither be created nor destroyed. It can be transferred from one form to another. When even such a conversion takes place, we get equivalent amount of energy.

$$5.(2) T = \sqrt{\frac{2u}{g}}$$

$$\frac{128}{32} \text{ seconds} = 8 \text{ seconds}$$

$$6.(4) \text{ Density} = \frac{m}{v}$$

(where  $m$  = mass,  $v$  = volume)

$$= \frac{2000}{50 \times 10 \times 4} \text{ g./cc} = 1 \text{ g./cc}$$

$$7.(4) \text{ Work done} = mgh$$

[where  $g = 32$ ]

$$= 400 \times 32 \times 100 = 1280000 \text{ ft. lbs.}$$

**8.(2) Since CuSO<sub>4</sub> solution is a neutral solution, so it turns phenolphthalein solution pink.**

**9.(1) Any quantity which has a definite magnitude but no direction is called scalar quantity.**

$$10.(2) \text{ K.E.} = \frac{P^2}{2m}$$

[where,  $P$  = linear momentum,  $m$  = mass]

Suppose in initial stage linear momentum = 100

Then,

When increased by 50%, it becomes = 150

Therefore,

$$\text{K.E.} \propto P^2$$

$$\therefore \frac{\text{K.E.}_1}{\text{K.E.}_2} = \frac{P_1^2}{P_2^2}$$

$$\text{or, } \frac{\text{K.E.}_1}{\text{K.E.}_2} = \left( \frac{P_2}{P_1} \right)^2$$

$$\therefore \text{or, } \frac{\text{K.E.}_2}{\text{K.E.}_1} = \frac{150 \times 150}{100 \times 100} = \frac{9}{4}$$

Suppose, K.E. = 100

$$\therefore \text{K.E.}_2 = \frac{\pi}{4} \times 100 = 225$$

**K.E. will increase by**

$$= 225 - 100 = 125\%$$

**12.(1) Photometer → Light intensity**

**Barometer → Pressure**

**Hygrometer → Relative humidity**

**13.(4) In vacuum, the speed of light is constant.**

**15.(4) A neutron has no any charge. So it does not experiences any force of repulsion or attraction.**

**20.(2) O → universal donor.**

**AB → universal accepter.**

**22.(3) In haemoglobin iron molecule is present, which combines with oxygen.**

**23.(1) Arteries :** Carry the blood from heart to different parts of the body.

**Veins :** Carry blood from different parts of the body to heart.

**28.(3) An exothermic reaction is one which is accompanied by liberation of heat.**

An endothermic reaction is one which is accompanied by absorption of heat.

**29.(2) According to Charle's law**

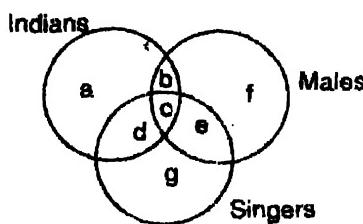
$$\frac{V_1}{T_1} = \frac{V_2}{T_2}$$

$$\text{or, } \frac{100}{10} = \frac{V_2}{20}$$

$$\therefore V_2 = \frac{100 \times 20}{10} = 200 \text{ ml.}$$

## REASONING & GENERAL AWARENESS

**Directions (1-5) : For Q. No. 1 to 5, study the following diagram before answering. There are three intersecting circles, each representing certain sections of people. Different regions are marked a to g.**



Indians is represented by

- (1) c (2) d  
(3) e (4) g

2. Indians who are males but not singers is represented by

- (1) b (2) a  
(3) f (4) e

3. Male Indian singers are represented by

- (1) b (2) e  
(3) c (4) d

4. Males who are neither Indians nor singers is represented by

- (1) f (2) b  
(3) a (4) g

5. Non-male Indian singers are represented by

- (1) a (2) b  
(3) e (4) d

6. I was born on August 11. Mohan is younger than me by eleven days. This year, Independence day falls on Monday. On what day will Mohan's birthday fall this year?

- (1) Monday  
(2) Wednesday  
(3) Sunday  
(4) Can't say

7. If Ram is richer than Shyam, but not so rich as Mohan, then Shyam is

- (1) Poorer than Ramesh  
(2) Richer than Mohan  
(3) Poorer than Mohan  
(4) Richer than Ram

8. The average of two numbers is 7.5 and their difference is 7.5. The smaller number will be

- (1) 3.75  
(2) Zero  
(3) 7.5  
(4) Data inadequate

9. 5 bags A, B, C, D and E are lying in a pile one above the other. If A is above B, C is above D but below E and D is above A, which bag is in middle?

- (1) A (2) B  
(3) D (4) E

10. 3, 10, 29, 74, ?

- (1) 128 (2) 120  
(3) 1270 (4) 173

11. 2, 6, 12, 20, 30, ?

1. Male singers who are not

**SOLVED PAPERS OF THE BANGALORE EXAM.**

(1) 42      (2) 40

(3) 36      (4) 44

12. Insert the missing number.

9    4    32

15    5    70

19    3    ?

(1) 51      (2) 53

(3) 54      (4) 28

13. If 123 stands for 987, then 234 stands for

(1) 876      (2) 786

(3) 785      (4) 867

14. Identify the group of letters which is different from others?

(1) A Z B Z

(2) C X D W

(3) E V F U

(4) G T H S

15. Identify, the city which is different from others?

(1) New Delhi

(2) Paris

(3) London

(4) Mumbai

16. If LADY is coded as 11-0-3-24, how will MAN be coded?

(1) 13-1-14

(2) 12-0-13

(3) 12-0-14

(4) 13-0-14

17. If I am 6th in the queue from either end, how many persons are in the queue?

(1) 12      (2) 10

(3) 13      (4) 11

18. Change the statement—"A certain number is equal to five less than twice another number" into algebraic form

(1)  $a = 2b - 5$  (2)  $a = 2(b - 5)$

(3)  $2a = b - 5$  (4)  $a = \frac{b-5}{2}$

19. In which state Navy's project "Sea Bird" coming up?

(1) Kerala

(2) Maharashtra

(3) Karnataka

(4) Orissa

20. Who abolished the practice of "Sati"?

(1) William Bentick

(2) Clive

(3) Dalhousie

(4) None of these

21. Where is Bandipur Wild Life Park situated?

(1) Kerala

(2) Andhra Pradesh

(3) Karnataka

(4) Tamil Nadu

22. Who among the following is associated with the Gorkha movement?

(1) Laldenga

(2) Subhash Ghising

(3) Sangma

(4) Rishang Keishing

23. Who won the 1999 Wimbledon Ladies Title?

(1) Steffi Graf

(2) Monica Seles

(3) Mary Pierce

(4) Lindsay Davenport

24. Who among the following has written Panchatantra?

(1) Bhavabhuti

(2) Vishnu Sharma

(3) Kalidasa

(4) Jaideva

25. Geeth Sethi is associated with which sport?

(1) Tennis

(2) Hockey

(3) Cricket

(4) Billiards

26. During 1999 Wimbledon Championship, which player was associated with two victories in the finals?

(1) Leander Paes

(2) Mahesh Bhupathi

(3) Pete Sampras

(4) Boris Becker

27. In which of the following cities I.I.M. is not situated?

(1) Bangalore

(2) Calcutta

(3) Ahmedabad

(4) Kanpur

28. Who is the present U.N. Secretary General?

(1) Kofi Annan

(2) Bill Clinton

(3) Tony Blair

(4) Boutros Boutros Ghali

29. Deutsche Mark is the currency of

(1) Holland

(2) France

(3) Germany

(4) Italy

30. Who was the captain of the victorious Cricket Team of 1999 World Cup?

(1) Md. Azharuddin

(2) Mark Waugh

(3) Steve Waugh

(4) Shane Warne

**SHORT ANSWERS**

1. (3)    2. (1)    3. (3)    4. (1)

5. (4)    6. (1)    7. (3)    8. (1)

9. (3)    10. (4)    11. (1)    12. (3)

13. (1)    14. (1)    15. (4)    16. (2)

17. (4)    18. (1)    19. (1)    20. (1)

21. (1)    22. (2)    23. (1)    24. (2)

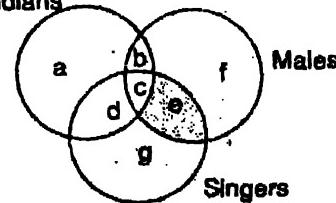
25. (4)    26. (1)    27. (4)    28. (1)

29. (3)    30. (3)

**ANSWERS WITH EXPLANATION**

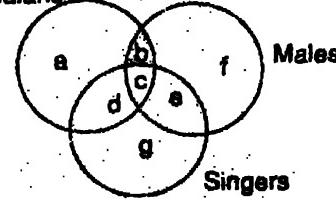
1.(3)

Indians

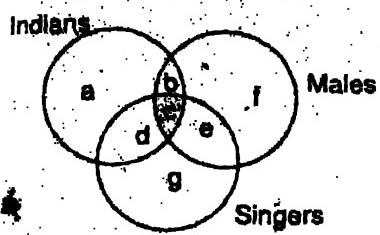


2.(1)

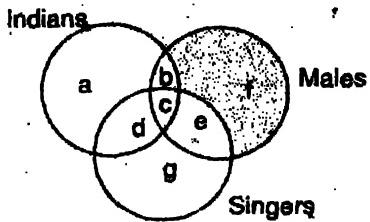
Indians



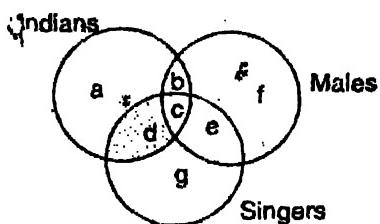
3.(3)



4.(1)



5.(4)



7.(3) According to question,  
Ram > Shyam

Mohan > Ram > Shyam

8.(1) Let two numbers be  $x$  and  $y$ .  
 $\therefore$  According to question,

$$\frac{x+y}{2} = 7.5$$

$$x+y=15 \quad \dots (i)$$

$$\text{and } x-y=7.5 \quad \dots (ii)$$

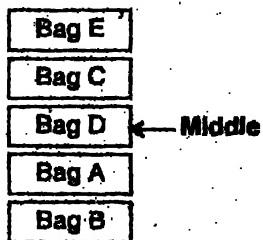
After solving equations (i) and (ii)

$$x = \frac{15+7.5}{2} = 11.25$$

$$y = 11.25 - 7.5 = 3.75$$

$\therefore$  Required number = 3.75

9.(3) According to question, the arrangements are as follow :



Therefore, the required answer is

D.

10.(4) The series is based on following pattern :

$$3 \times 2 + (2)^2 = 10$$

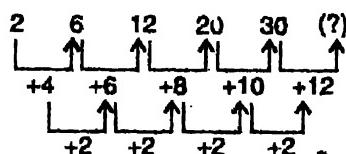
$$10 \times 2 + (3)^2 = 29$$

$$29 \times 2 + (4)^2 = 74$$

$$74 \times 2 + (5)^2 = 173$$

Therefore, the required answer is 173.

11.(1)



$$\therefore ? = 30 + 12 = 42$$

12.(3) 1st 2nd 3rd  
col. col. col.

9	4	32
15	5	70
19	3	?

From visual inspection, it is clear that (First column  $\times$  Second column) – Second column = Third column

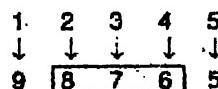
$$\therefore 9 \times 4 - 4 = 32$$

$$15 \times 5 - 5 = 70$$

$$\therefore ? = 19 \times 3 - 3$$

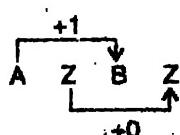
$$= 57 - 3 = 54$$

13.(1) The coding is based on following pattern :

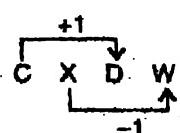


Therefore, the code of 234 is 876.

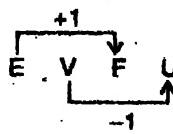
14.(1) Option (1) :



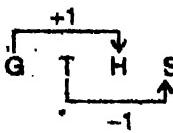
Option (2) :



Option (3) :



Option (4) :



Therefore, the option (1) is different from others.

15.(4) Except Mumbai, other cities are capital of country.

16.(2) The coding pattern is as follows :

A	B	C	D	E	F
↓	↓	↓	↓	↓	↓
0	1	2	3	4	5

G	H	I	J	K	L
↓	↓	↓	↓	↓	↓
6	7	8	9	10	11

M	N	O	P	Q	R
↓	↓	↓	↓	↓	↓
12	13	14	15	16	17

S	T	U	V	W	X
↓	↓	↓	↓	↓	↓
18	19	20	21	22	23

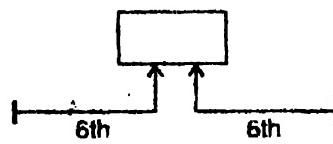
Y      Z

↓      ↓

24    25

$\therefore \text{MAN} \Rightarrow 12 - 0 - 13$

17.(4)



Required answer =  $(6 + 6 - 1)$   
 $= 12 - 1 = 11$

18.(1) According to question,  
Required answer  $\Rightarrow a = 2b - 5$ .

□ □ □

# CURRENT - CURRENTS

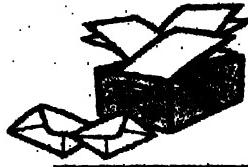
1. The Small Industries Development Bank of India [SIDBI] has decided to raise \_\_\_\_\_ from the domestic market for the current year.  
 (1) Rs. 1,400 crores  
 (2) Rs. 1,500 crores  
 (3) Rs 1,600 crores  
 (4) Rs. 1,850 cores
2. What is presently the rank of India in purchasing power parity [PPP] terms?  
 (1) 1Ind (2) 11rd  
 (3) 1Vth (4) Vth
3. Recently, the Project Approval Board under the Industry Ministry has permitted Maruti Udyog Ltd. [MUL] to roll out \_\_\_\_\_ new car Models.  
 (1) two (2) three  
 (3) four (4) five
4. Recently which country has opened its first Trade Commission office in South India at Chennai, which has a bilateral trade exceeding \$ 2 billion with India?  
 (1) France (2) Italy  
 (3) Japan (4) China
5. According to Automotive Tyre Manufacturers Association [AIMA], Tyre Industry is poised for an accelerated \_\_\_\_\_ growth during the current financial year, in the wake of an economic revival.  
 (1) 10% (2) 11%  
 (3) 13% (4) 15%
6. The Indian diamond industry, with revival in demand from the beginning of last year has posted a strong performance for the full year. In 1998-99, gems and jewellery export totalled:  
 (1) \$ 5.206 billion  
 (2) \$ 6.206 billion  
 (3) \$ 6.406 billion  
 (4) \$ 7.506 billion
7. The Government on September 27, cleared 46 foreign investment proposals worth \_\_\_\_\_ including that of fast food giants Dominos Pizza and engineering multinational ABB.  
 (1) Rs. 202 crores  
 (2) Rs 204 crores  
 (3) Rs 205 crores  
 (4) Rs. 208 crores
8. Foreign direct investment flows to India fell by 8 billion in 1998, even as the total volume of flows into Asia Pacific region also dropped by \_\_\_\_\_ in the backdrop of the Asian financial crisis.  
 (1) 11% (2) 12%  
 (3) 15% (4) 16%
9. Recently the Government has set up a committee to change the tax structure in \_\_\_\_\_ as part of its efforts to rapidly develop the much-neglected sector.\*  
 (1) Ship Industry  
 (2) Mining Industry  
 (3) Textile Industry  
 (4) Handloom Industry
10. Reliance Industries has recently concluded marketing agreements to sell its entire output of controlled products from its 27 million tonnes Jamnagar refinery to the Government-controlled marketing companies. These are—  
 (1) Hindustan Petroleum Corporation Ltd.  
 (2) Bharat Petroleum Corporation Ltd.  
 (3) Both (1) and (2)  
 (4) None of these
11. Despite Infrastructure constraints and procedures involving aircraft acquisition in India aircraft manufacturer Air bus Industries see the number of planes in the country increasing by—  
 (1) 3.2% (2) 3.6%  
 (3) 3.8% (4) 3.9%
12. Bharat Heavy Electrical Ltd. (BHEL) has notched a record turnover of Rs. 6795 crore during 1998-99 up by \_\_\_\_\_ over the previous year.  
 (1) 4 % (2) 5 %  
 (3) 6 % (4) 8 %
13. During the period April to August 1999, Telco's Indica has garhered a \_\_\_\_\_ market share of the total passenger car market.  
 (1) 5.86% (2) 5.96%  
 (3) 5.98% (4) 6.86%
14. The Reserve Bank of India (RBI) constituted Verma Panel Report on restructuring of weak public sector banks has recommended a \_\_\_\_\_ bailout package for weak banks.  
 (1) Rs. 4,500 crores  
 (2) Rs. 4,800 crores  
 (3) Rs. 5,200 crores  
 (4) Rs. 5,500 crores
15. Contrary to the fears, revenue collections were brought in the first half of their financial year recording a \_\_\_\_\_ growth with monthly figures for September 1998 showing a substantial 18.3 per cent growth.  
 (1) 12.4% (2) 13.4%  
 (3) 14.2% (4) 15.6%
16. The 30-scrip index of the Bombay Stock Exchange (BSE) created a record on October 8, surpassing the historic mark of \_\_\_\_\_  
 (1) 4000 points level  
 (2) 4500 points level  
 (3) 5000 points level  
 (4) 5500 points level
17. According to the Centre for Monitoring Indian Economy [CMIE] real gross domestic product (GDP) of India in 1999-2000 is likely to grow at a lower \_\_\_\_\_ against 5.9 per cent.  
 (1) 5.1% (2) 5.4%  
 (3) 5.6% (4) 6.2%
18. Gold sales seems to have become a highly rewarding business proposition for State Bank of India. In the last six months, the bank has notched up a sale of the yellow metal worth—  
 (1) Rs. 310 crores  
 (2) Rs 340 crores  
 (3) Rs 360 crores  
 (4) Rs 380 crores
19. Compared to the 4.2 per cent in the same period last year, in April-August 1999-2000, the Industrial growth has spurted to—  
 (1) 5% (2) 5.2%  
 (3) 5.8% (4) 6%
20. The indigenously-built unmanned aircraft, Nishant, was successfully test-flown on September 29, from the interim test range [ITR] of—  
 (1) Bikaner (2) Bangalore  
 (3) Hyderabad  
 (4) Chandipur-on-sea
21. On September 30, India successfully test-fired 'Akash' having a range of 25 km from the Interim Test range ITR of Chandipur. Akash is a—  
 (1) Surface to air missile  
 (2) Surface to surface missile  
 (3) Air to air missile  
 (4) Multi target surface to air missile
22. The author of the book "Development As Freedom" is—  
 (1) Amartya sen  
 (2) Manmohan Singh  
 (3) P. Chidambaram  
 (4) None of these
23. The book "Mandela : The Authorised Biography" has been written by—

**CURRENT CURRENTS**

- (1) J.N. Dikshit  
 (2) Anthony Sampson  
 (3) Pinki Virani  
 (4) None of these
24. The 81st Asian Economics Minister's meeting was recently held at—  
 (1) Singapore (2) New Delhi  
 (3) Colombo (4) Karachi
25. Defexpo India '99—the first exhibition of land and naval system mounted on the country's soil was recently organised at—  
 (1) Mumbai (2) Bangalore  
 (3) Chennai (4) New Delhi
26. Professor Joseph Rotblat, a noted nuclear physicist has won 1999 prestigious Jamnalal Bajaj Award for promoting Gandhian value outside India. He is from—  
 (1) America (2) Britain  
 (3) Canada (4) France
27. The Jamnalal Bajaj Award for outstanding contribution in the field of constructive work has gone to—  
 (1) Ajay Kumar Basu  
 (2) Narayan Desai  
 (3) Ms. Saraswati Gora  
 (4) None of these
28. The Karnataka State Government has recently conferred the prestigious 'Karnataka Ratna' Award on—  
 (1) H.D. Deve Gowda  
 (2) J.H. Patel  
 (3) Mr. Nijalingappa  
 (4) None of these
29. Padamshree Babulal Jain Patoudi has been honoured with the Sahu Ashok Jain Smriti Award, which has been instituted by the Baraut Jain Samaj.  
 (1) first (2) second  
 (3) third (4) fourth
30. Who among the following has been awarded the prestigious 250,000 World Food prize?  
 (1) Johan Kennedy  
 (2) Dr. Walter Plowright  
 (3) Joseph Rotblat  
 (4) None of these
31. Who among the following is/are recipient of the 1999 Right Livelihood Award?  
 (1) Mr. Jain Garen  
 (2) Augusto Pinochet  
 (3) Both (1) and (2)  
 (4) None of these
32. Who among the following has been honoured with the 'Direct Tax Award' for his book "Income Tax Planning"?  
 (1) Amartya Sen  
 (2) Madhu Soodan Tripathi  
 (3) Manmohan Singh  
 (4) Yashwant Sinha
33. Who among the following has been honoured with the 1999 Nobel Prize for Physics?  
 (1) Dr. Gerardus Hooft  
 (2) Dr. Martinus Veltman  
 (3) Both (1) and (2)  
 (4) None of these
34. Famous novelist Mr. Gunter Grass has won the 1999 Nobel Prize for literature. He is from—  
 (1) Japan (2) America  
 (3) Canada (4) Germany
35. Who among the following has been awarded the 1999 Indira Gandhi Award for National Integration?  
 (1) K.R. Narayanan  
 (2) Buta Singh  
 (3) Neelam Sanjeev Reddy  
 (4) Shankar Dayal Sharma
36. Recently, to which country India has offered 500 tonnes of rice?  
 (1) Pakistan (2) Sri Lanka  
 (3) Indonesia (4) Malaysia
37. Who among the following has been elected the Chairman of the Advertising Standards Council of India?  
 (1) Bharat Kapadia  
 (2) Shekhar Gupta  
 (3) Shoba Subrahmanyam  
 (4) None of these
38. Who among the following has been elected President of the Board of Control for Cricket in India?  
 (1) Chandu Borde  
 (2) Sunil Gavaskar  
 (3) A.C. Muthiah  
 (4) G.D. Vishwanath
39. Recently, the President Mr. A.C. Abdullah Soleh, has swept to victory in Yemen's first direct presidential elections with \_\_\_\_\_ of the vote.  
 (1) 94.3% (2) 95.3%  
 (3) 96.3% (4) 98.3%
40. Who among the following has been elected President of the Indian Motion Picture Producer's Association [IMPPA] for 1999-2000?  
 (1) Mr. K.D. Shorey  
 (2) Mr. Saawan Kumar Tak  
 (3) Govind Nihalni  
 (4) Ram Kumar Verma
41. The world famous personality, Julius Nyerere died in a London Hospital on Oct. 14. He was the leader of—  
 (1) Nigeria (2) South Africa  
 (3) Tanzania (4) None of these
42. Mr. Abdurrahman Wahid, Islamic scholar with gilt-edged secular credentials, has been sworn in as \_\_\_\_\_ new President.  
 (1) Algeria's (2) Indonesia's  
 (3) Tanzanian's (4) Poland's
43. Who among the following has sworn in as the 16th Chief Minister of Karnataka recently?  
 (1) J.H. Patel  
 (2) Ram Krishna Hegde
- (3) H.D. Deve Gowda  
 (4) S.M. Krishna
44. Recently, who among the following has been appointed as officer on special duty in Prime Minister's House?  
 (1) Brajesh Mishra  
 (2) Shantanu Gupta  
 (3) Kanchan Gupta  
 (4) None of these
45. Recently senior Congress leader Vilasrao Deshmukh has been sworn in as the \_\_\_\_\_ Chief Minister of Maharashtra?  
 (1) 20th (2) 21st  
 (3) 22nd (4) 23rd
46. Who among the following tennis player has won the Princess Cup recently held at Tokyo?  
 (1) Lindsay Devendpart  
 (2) Monica Sels  
 (3) Martina Hingis  
 (4) Serena Williams
47. Which among the following cricket players has bagged the 'CEAT International Cricketer of the year Award for 1998-99' and received the award which carries a cash prize of Rs. Five lakhs?  
 (1) Sachin Tendulkar  
 (2) Rahul Dravid  
 (3) Steve Waugh  
 (4) Jack Kallis
48. Who among the following has won the recently held 37th World Junior Chess Championship at Yerevan?  
 (1) Alexander Garkkin  
 (2) Giorgi Bakhatalapze  
 (3) Krishnan Sasikiran  
 (4) Yuliando Erwin
49. Which among the following team won the Dunhill Cup of Golf which was recently held at St. Andrews?  
 (1) America (2) Britain  
 (3) France (4) Spain
50. Which team is the winner of the recently-held Al Ahram world men's team Squash Championship?  
 (1) Egypt (2) India  
 (3) Pakistan (4) None of these

**SHORT ANSWERS**

- |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|
| 1.  | (2) | 2.  | (3) | 3.  | (3) | 4.  | (2) |
| 5.  | (1) | 6.  | (2) | 7.  | (1) | 8.  | (1) |
| 9.  | (2) | 10. | (3) | 11. | (4) | 12. | (2) |
| 13. | (4) | 14. | (4) | 15. | (2) | 16. | (3) |
| 17. | (1) | 18. | (3) | 19. | (4) | 20. | (4) |
| 21. | (4) | 22. | (1) | 23. | (2) | 24. | (1) |
| 25. | (4) | 26. | (2) | 27. | (2) | 28. | (3) |
| 29. | (1) | 30. | (2) | 31. | (1) | 32. | (2) |
| 33. | (3) | 34. | (4) | 35. | (4) | 36. | (3) |
| 37. | (1) | 38. | (3) | 39. | (3) | 40. | (1) |
| 41. | (3) | 42. | (2) | 43. | (4) | 44. | (3) |
| 45. | (2) | 46. | (1) | 47. | (4) | 48. | (1) |
| 49. | (4) | 50. | (1) |     |     |     |     |



# Readers' Reaction

## ADMIRATION

I am one of the readers of your esteemed magazine 'PRATIYOGITA KIRAN' for the last one year and I felt a lot of improvement in preparing for various one-day competitive exams by your magazine. The tricks which are given in your magazine are highly impressive. These tricks are really helpful in improving one's ability and speed in Mathematics. For one-day competitive exams we need such formulas and tricks for solving mathematical problems in a very short time. In this regard your magazine is really very helpful.

**Sudheer Kumar  
Surat, Gujarat**

I have been an avid reader of your monthly magazine "PRATIYOGITA KIRAN" for past two years. From my two years's experience, I have learned that PRATIYOGITA KIRAN is undoubtedly an inspiring magazine. It is not only a magazine, but also a proper guidance for all the students.

The Free Supplement "How To Prepare For Non-Verbal Reasoning" of October, 1999 issue was very helpful for all kinds of competitive examinations. But I request you to publish more General Knowledge Sets and some Descriptive Sets in every issue.

**Subrat Kumar Padhi  
Tajpur, Orissa**

## SUGGESTION

I am a regular reader of your prestigious magazine PRATIYOGITA KIRAN since May'99. I am a diploma in Civil Engineering and at present I am preparing for Railway examinations like Appr. Supervisor, Jr. Depot Store Keeper etc. But I am unable to get proper guidance for these exams. So I request you to publish the complete syllabus, distribution of marks for different topics and at least one complete question paper of any RRB. Hope this will help me a lot.

**Pradip Kar  
Bankura (W.B.)**

I am happy and satisfied to state that I have become a regular reader

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It was the quality and quantity of your magazine that dragged my attention. But I am disappointed to see the dull printing and poor quality of papers. I hope that you will give attention on my suggestion and certainly it will increase your readership.

**Gautam Sharma  
Rewari (Haryana)**

Although, Solved Papers and Practice Sets on Railways Exams. are the regular feature of this magazine but yet we have not published any material on these exams of Railway but I assure you that in future we will by my best to publish material on these exams.

Secondly, you have complained me about the dull printing and poor quality of papers. But this magazine is such a voluminous one that we are getting ourselves unable to provide you high quality papers. But in future we will consider your suggestion.

—Editor

## DEMAND

I am a regular reader of your maga-

zine 'PRATIYOGITA KIRAN' for RRE & SSC & Bank Clerk exams. etc. In coming months there are so many exams of Railways. I will be very happy if you publish more and more Solved Papers and Practice Sets on Railway Exams.

**Arun Kumar Nahai  
Rourkela-Orissa**

Needless to say that I am a regular reader of your prestigious magazine PRATIYOGITA KIRAN. At present I am preparing for Bank P.O. Exam. and in coming months, there are so many important exams. of Bank P.O. The General Awareness Paper of Bank P.O. Exam is becoming tough day-by-day and it is fully current based. Therefore I request you to publish more and more Practice Sets and material on G.S. For this I will be highly grateful to you.

**Ashutosh Sharma  
Mithanpura, Muz. pu**

In this magazine, Railways exams are getting wide coverage. You may see my issue, Solved Papers and Practice Sets on Railways Exam. are the regular feature of this magazine. In this issue we are providing a Model Practice Set on Bank P.O. Exam. and in coming months you will see more and more. —Editor

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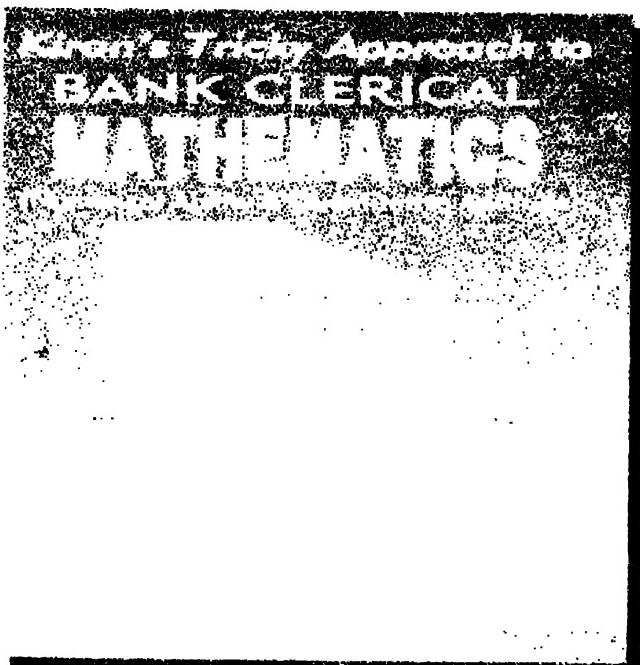
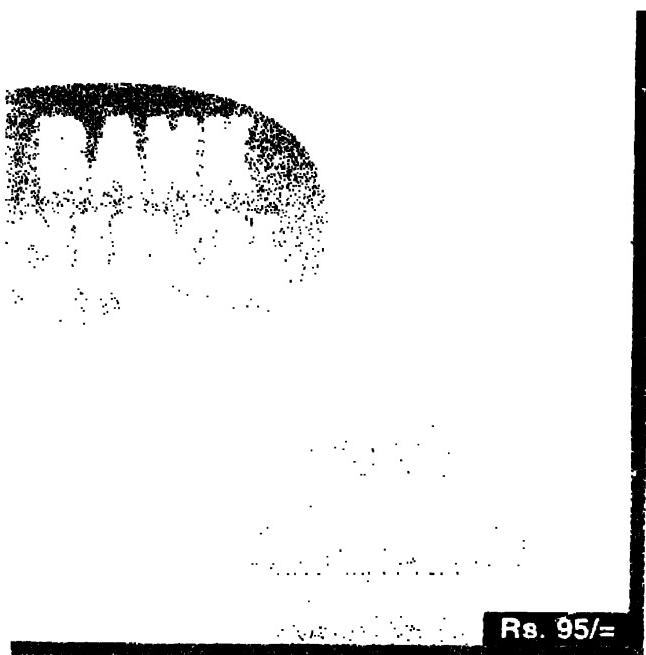
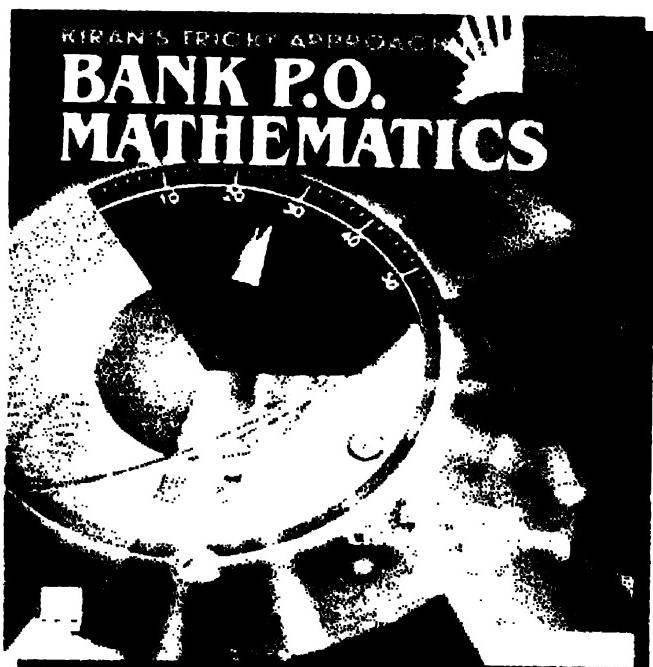
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